

149

tggtgag

667

&lt;210&gt; 437

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 437

```

ctacgtctca accctcattt ttaggtaagg aatcttaagt ccaasgatat taagtgactc 60
acacagccag gtaaggaaag ctggattggc acactaggac totaccatac cgggttttgt 120
taaggtccag gttaggaggg tgataagctt ggaaggaaat tcagacagct ttttcagatc 180
ataaagata attcttagcc catgtttctt tccagagcag acctgaaatg acagcacagc 240
aggtaactct ctattttcac cctctttgct tctactctct gccagtcaga cctgtggggg 300
gccatgggag aaagcagctc totggatgtt tgtacagatc atggactatt ctctgtggac 360
catttctcca ggttaccta ggtgtcacta ttggggggac agccagcacc tttagctttc 420
atttgagttt ctgtctgtct tcagtagagg aaacttttgc tcttcacact tcacatctga 480
acacctaaat gctgttgctc ctgaggtggt gaaagccaga tatagagctt acagtattta 540
tctatttctt aggcactgag ggtgtgtggg taccttgttg tgccaaaaca gatcctgttt 600
taaggacatg ttgcttcaga gatgtctgta actatctggg ggtctctgtt gctctttacc 660
ctgcacatg tgctctctt gctgaaaatg acc

```

&lt;210&gt; 438

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 438

```

ctgcttatca caatgaatgt tctcctgggc agcgttgtga tctttgccac ctctgtgact 60
ttatgcantg catcatgcta ttccatacct aatgagggag ttccaggaga ttcaaccagg 120
atgtttctac acctgtgggt tatgacaaag acaactgccs aagaatcttc aagaaggagg 180
actgcaagta tatctggttg aqaagaagga cccaaaaaag acctgttctg tcagtgaattg 240
gataatctaa tgtgcttcta gtaggcacag ggtcccaagg ccaggcctca ttctcctctg 300
gcctctaata gtcaataatt gtgtagccat gcctatcagt aaaaagattt ttgagcaaac 360

```

&lt;210&gt; 439

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(431)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 439

```

gttctctnnta actcctgccs gaaacagctc tcttcaacat gagagctgcs cccctcctcc 60
tggccagggc agcaagcctt agccttggtt tcttgtttct gctttttttc tggttagacc 120
gaagtgtact agccaaggag ttgaagtgtt tgactttggt gtttcggcat ggagaccgaa 180
gtccatttga cacttttccc actgacccca taagggaatc ctcatggcca caaggatttg 240
gccaatccac ccagctgggc atggagcagc attatgaact tggagagtat ataagaaaga 300
gataatgaaa attcttgaat gagtctata aacatgaaca ggtttatatt cgaagcacag 360
acgttgaccg gactttgatg agtgctatga caaacctggc agcccgtaga cgcggccggg 420
aatttagtag t

```

&lt;210&gt; 440

&lt;211&gt; 523

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

150

&lt;400&gt; 440

```

agagataaag ctttaggtcaa agttcataga gtcccatga actatatgac tggccacaca 60
ggatcttttg tatttaagga ttctgagatt ttgcttgagc aggattagat aaggctgttc 120
tttaaatgtc tgaataggaa cagatttcaa aaaaaaacc cacaatctag ggtgggaaca 180
aggaaaggaaa gatgtgaata ggctgatggg caaaaaacca atttaccocat cagttccagc 240
cttctctcaa ggagaggcaa agaaaggaga tacagtggag acatctggaa agttttctcc 300
actggaaac tgcactatc tgtttttata tttctgttaa aatatatgag getacagaac 360
taaaaattaa aacctctttg tctcccttgg tcttggaaac tttatgttcc ttttaagaa 420
acaaaaatca aactttacag aaagatttga tgtatgtaac acatatagca gctcttgaag 480
tatatatatc atagcaata agtcacttga tgaagacaag cta 523

```

&lt;210&gt; 441

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 441

```

gttctctcta actcttgcca gaacacagctc tctcaaacat gagagctgca cccctctccc 60
tggccagggc agcaagccctt agccttggct tcttgtttct gcttttttc tggctagacc 120
gaagtgtact agccaaggag ttgaagtttg tgactttggc gtttcggcat ggagaccgaa 180
gtcccattga cacttttccc actgacccca taagggaatc ctcatggcca caaggatttg 240
gccaactcac ccagtgggac atggagcagc attatgaact tggagagtat ataagaaaga 300
gatatagaaa attcttgaat gagtccata aacatgaaca ggtttatatt cgaagcacag 360
acgttgaccc gactttgatg agtgctatga caaacctggc agccctgcca cgcggccggc 420
aattagtag 430

```

&lt;210&gt; 442

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 442

```

ctaaggaaat agtagtgttc ccctcacttg ttggagtggt gatattctaa aagattttga 60
tttcttgaaa tgacaattat attttaactt tggtagggga aagagttata ggaccacagt 120
cttcacttct gatacttgta aattaacttt ttattgcact tgttttgacc attaagctat 180
atgttttagaa atggtaattt tacggaaaaa ttagsaaact tctgataata gtgcagaata 240
aatgaattaa tgttttactt aatttatatt gaactgtcaa tgcaaaataa aaattttttt 300
tgattatttt ttgttttcat ttaccagaat aaaaactaag aattaaaaat ttgattacag 360
to 362

```

&lt;210&gt; 443

&lt;211&gt; 624

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(624)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 443

```

tttttttttt gcaacacaat atcatccaca gtgaatgtg taatccttgc aatttgcaag 60
tgaagaagat taatttcaga ggaagggaga gaagaggtac tcagtatggga ctgagcacta 120
aatgcttatt tttaaaagaaa tgtaaagagc agaaagcaat tcaggctacc ctgccttttg 180
tgctggctag tactccggtc ggtgtcagca gcaagtggca ttgaacattg caatgtggag 240
cccaaacacc agaaaattgg gtgaatttgg ccaactttct attaaccttg ctctctgttt 300
tataaatat tgtgaataat atcaactact tcaaggggca gttatgagc ttaaatgaac 360

```

151

```

taacgcctac aasacactta aacatagata acatagggtgc aagtactatg tatctggtag 420
atggtaaacat tcccttattat taasgtcaac gctaaaatga atgtgtgtgc atatgctaast 480
agtaacagaga gagggcaactt aaaccaaata agggcctgga ggaaggttt cctggaaaga 540
ngatgcttgt gctgggtcca atctcttggtc tactatgacc ttggccaaat tatttaaact 600
ttgtccctat ctgctaaca gata 624

```

```

<210> 444
<211> 425
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(425)
<223> n = A,T,C or G

```

```

<400> 444
gcacatcatt nntcttgcct tctttgagaa taagaagatc agtaaatagt tcagaagtgg 60
gaagctttgt ccaggccctgt gtgtgaaccc aatgttttgc ttgaaatag aacaagttag 120
ttcattgcta tagcataaca caaatattgc ataagtggtg gtcagcaaat ccttgaatgc 180
tgttaastgt gagaggttgg taatactctt tgtgcaacac tctaaactcc tgaatgtttt 240
gctgtgctgg gacctgtgca tgcagacaa ggccaagctg gctgaagag caaccagcca 300
cctctgcaat ctgccacctc ctgctggcag gatttgtttt tgcactctgt gaagagccaa 360
ggaggcaacca gggcataagt gagtagactt atggtcgacg cggcccgcaa tttagtagta 420
gtaga 425

```

```

<210> 445
<211> 414
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

```

```

<400> 445
catgttttat nttttggatt actttgggca cctagtgttt ctasatcgtc tatcattctt 60
ttctgtttttt caaaagcaga gatggccaga gtctcaacaa actgtatctt caagtctttg 120
tgaattctct tgcattgtgc agattattgg atgtagtctt ctttaactag catataaatc 180
tgggtgtgtt cagataaatg aacagcaaaa tgtgtgtgga ttaccatttg gacatttgtg 240
aatgaaaaat tgtgtctcta gattatgtaa caataacta ttctctaacc attgatcttt 300
ggatttttat aatcctactc acaaatgact aggtctctcc tcttgtattt tgaagcagtg 360
tgggtgcttg attgataaaa aaaaaaaaag tcgacgcggc cgcgaattta gtag 414

```

```

<210> 446
<211> 631
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(631)
<223> n = A,T,C or G

```

```

<400> 446
acaaattaga anaaagtgc agagaacacc acatccttgg tccggaacat tacaatggct 60
cttgcattgca ttgggaagtgt gagcattcta tcaatatgca ggagccatct tgcaggtgtg 120

```

152

```

atgctggtta tactggacaa cactgtgaaa aaaaggacta cagtgttcta tacgttggtc 180
ccggtcctgt acgatttcag tatgtcttaa tcgcagctgt gattggaaca attcagattg 240
ctgtcatctg tgtgggtggtc ctatgcatac caagggccaa actttaggta atagcattgg 300
actgagattt gtaaaccttc caaccttcca ggaastgccc cagaagcaac agaatttaca 360
gacagaagca aaatacaggg cactacagtt cagacaatac aacaagagcg tccacgaggt 420
taactctaaag ggaagcatgtt tcacagtggc tggactaccg agagcttggc ctacacata 480
cagtattata gacaaaaaga taagacaaga gatctacaca tgttgcttg catttggtgt 540
aatctacacc aatgaaaaca tgtactacag ctatatgtga ttatgtatgg atatatattg 600
aatagtatac attgtcttga tgtttttct g

```

&lt;210&gt; 447

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(585)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 447

```

ccttgggaaa antntcacia tataaagggt cgtagacttt actccaaatt ccaaaaaggt 60
cctggccatg taactctgaa agttttccca aggtagctat aaaatcctta taagggtgca 120
gactctctct gaattcctct gatttcaag tctcactctc agttcttga aaacgagggc 180
agttcctgaa aggcaggtat agcaactgat cttcagaaag aggaactgtg tgcaccggga 240
tgggctgcca gattaggata gattccaga tctgacacc ttctggggga aacagggctg 300
ccaggtttgt catagcactc atcaagctcc ggtcaagctc tgtgcttga atataaacct 360
gttcattgtt ataggactca ttcaagaatt ttctatatct ctttcttata tactctocaa 420
gttcataatg ctgtccatg cccagctggg tgagttggcc aatccttgt ggcctagagg 480
attcttttat ggggtcagtg ggaagggtgt caatgggact tcggtctcca tgccgaasaa 540
ccaaagtcac aaacttcaac tcttggcta gtacacttgc gtcta

```

&lt;210&gt; 449

&lt;211&gt; 93

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(93)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 449

```

tgcctgtggg tcattctgan nncogaactg acctgocag cctgocgan gggocnccat 60
ggctccctag tgccttgag agganngggc tag

```

&lt;210&gt; 449

&lt;211&gt; 706

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(706)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 449

```

ccaagttcat gctnctgtgt ggaagctgga cagggggcaa aagcnattgc tctgtgggtca 60

```

153

```

ttctgascac cgaactgacc atgccagccc tgcgatgggt cctccatggc tccctagtgc 120
cctggagagg aggtgtctag tcagagagta gtccctggag gtggcctctg ngaggagcca 180
cggggacagc atcctgcaga tggctggggg cgtcccattc gccattcagg ctgcgcaact 240
gttgggaagg gcgatcgggt cgggcctctt cgtctattac ccagctggcg aaagggggat 300
gtgctgcaag gcgattaagt tgggtaacgc cggggttttc ccagtcncca cgttgtaaaa 360
cgacggccag tgaattgaat ttaggtgaon ctatagaaga gctatgacgt cgcattgca 420
cgtacgtaa cttggatcct cttagagcgc cgcctactac tactaaattc ggggcgcgt 480
cgacgtggga tccncaactg gagagtggag agtgacatgt gctggacnct gtccatgaag 540
cactgagcag asgtggagg caccacgnc cagacactca cagctactca ggaggtgag 600
aacaggttga acctgggagg tggaggttgc aatgagctga gatcaggccn ctgcncccca 660
gcattggtga cagagtga aa cccatctta aaaaaaaa aaaaaa 706

```

&lt;210&gt; 450

&lt;211&gt; 493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 450

```

gagacggagt gtcactctgt tgcacaggct ggagtgcagc aagacactgt ctaagaaaaa 60
acagttttta aggttaaaac aacataaaaa gaaatatcct atagtggaaa taagagagtc 120
aaatgagggt gagaacttta caaagggtac ttacagacat gtgcgcaata tcaactgcatt 180
agcctaagta taagascac ctttggggag aaaccatcat ttgacagtga ggtacaattc 240
caagtccagt agtgaatatg gtggaattta actcaattta atcctgccag ctgaacgcga 300
agagacactg tcagagaggt aaaaagttag ttctatccat gaggtgattc cccagtcttc 360
tcaagtcaac acatctgtga actcacagac caagttctta aaccactgtt caaactctgc 420
tacacatcag aatcacctgg agagctttac aaactcccat tgcgaggggt cgaacggggc 480
gcgaatttag tag

```

&lt;210&gt; 451

&lt;211&gt; 501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(501)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 451

```

ggggcgctcc cattcgccat tcaggtctgc caactgttgg gaagggcgat cgggtcgggc 60
ctcttgccta ttacgcagc tggcgaaagg gggatgtgct gcaaggcgat taagttgggt 120
aacgccaggg ttttcccagt cnogacgttg taaaacgacg gccagtgaat tgaatttagg 180
tgacnctata gaagagctat gacgtcgcat gcacgcgtac gtaagcttgg atcctctaga 240
gcggcgccct actactata scttcggcgc cgcgtcgacg tggggtccn actgagagag 300
tggagagtga catgtgctgg acnctgtcca tgaagcactg agcagaagct ggaggcacas 360
cgncocagac actcacagct actcaggagg ctggaacacg gttgaacctg ggaggtggag 420
gttgcaatga gctgagatca ggcenctgen cccagcctg gatgacagag tgaactctca 480
tcttaaaaaa aaaaaaaaaa a

```

&lt;210&gt; 452

&lt;211&gt; 51

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(51)

&lt;223&gt; n = A,T,C or G

154

```

<400> 452
agaaggttgc accattacaa cnccttttag gatggggnntt ggggagcaag c      51

<210> 453
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1)...(317)
<223> n = A,T,C or G

<400> 453
tacatcttgc tttttcccca ttggaaactag tcattcaacc atctctgaac tggtagaasa 60
acatctgaag agctagtcta tcagcatctg gcaagtgaat tggatgggtc tcagaaccat 120
ttcaccacaa cagcctgttt ctatctgttt taataaatta gtttgggttc totacatgca 180
taacaaaccc tgcaccaatc tgtcacataa aagtctgtga cttgaagttt antcagcacc 240
cccacaaacc tttatttttc tatgtgtttt ttgcacataa tgagtgtttt gaaaataaag 300
taccatgttc tttatta                                     317

<210> 454
<211> 231
<212> DNA
<213> Homo sapiens

<400> 454
ttcaggttac aataaactct cagagtgtag ttctcttcta tagatgagtc agcattaata 60
taagccacgc cagctctctg aaggagtctt gaattctcct ctgctcactc agtagaacca 120
agaagaccaa attctctctg atccagctt gcaaacaaaa ttgttctctt aggtctccac 180
cttctctttt tcagtgttcc aaagctctct acattttcat gaacaacagc t      231

<210> 455
<211> 231
<212> DNA
<213> Homo sapiens

<400> 455
taccaaagag ggcataataa tcagtctcac agtaggggtc accatcctcc aagtgaasaa 60
cattgttccg aatgggtctt ccacaggtta cacacacaaa acaggaaaca tgccaagttt 120
gttccaacgc attgatgact tctccaagga tcttcttttg gcattgacca cattcagggg 180
caaagaattt ctcatagcac agctcacaat acagggtctc tttctctct a      231

<210> 456
<211> 231
<212> DNA
<213> Homo sapiens

<400> 456
ttggcaggta cctttacaaa gaagacacca taccttatgc gttattaggt ggaataatca 60
ttccattcag tattatcgtt attattcttg gacaaacccct gtctgtttac tgtaaccttt 120
tgcaatcaaa ttccttttato aggaataact acatagccac taattacaaa gccattggaa 180
cctttttatt tgggtcagct gctagtcaat cctgactga cattgccaag t      231

<210> 457
<211> 231
<212> DNA

```

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(231)

<223> n = A,T,C or G

<400> 457

```
cgaggtaccc aggggtctga aaatctctnn ttantagtc gatagcaaaa ttgttcacac 60
gcatttcctta atatgatctt gctataatta gattttttct cattagagtt catcacagtt 120
tatttgattt tattagcaat ctctttcaga agacccctga gatcattaag ctttgtatcc 180
agttgtctaa atcgatgctt catctctctt gaggtgtctg tggcttttgt g 231
```

<210> 458

<211> 231

<212> DNA

<213> Homo sapiens

<400> 458

```
aggtcttggt ccccccactt ccactccctt ctactctctc taggactggg ctgggccaag 60
agaagagggg tggtagggga agccgttgag acctgaagec ccacctctta ccttccttca 120
acaccttaac cttgggtaac agcatttgga attatcattt gggatgagta gaatttcaca 180
ggtctctggg taggcatttt gggggggcag accccaggag aagaagatto t 231
```

<210> 459

<211> 231

<212> DNA

<213> Homo sapiens

<400> 459

```
ggtaccgagg ctgcctgaca cagagaaacc ccaacgcgag gaaaggaatg gccagccaca 60
ccttcgcgaa acctgttggt gccaccagt cctaacggga caggacagag agacagagca 120
gccctgcaat gttttccctc caccacagcc atcctgtccc tcattggctc tgtgctttcc 180
actatcacaa gtcacggtcc caatgagaaa caagaaggag caccctccac a 231
```

<210> 460

<211> 231

<212> DNA

<213> Homo sapiens

<400> 460

```
gcaggtataa catgctgcaa caacagatgt gactaggaac ggccggtgac atggggaggg 60
cctatcaccc tattcttggg ggtgcttct tcacagtgat catgaagcct agcagcaaat 120
cccacctccc caccagcaca cggccagcct ggagcccaca gaagggctct cctgcagcca 180
gtggagcttg gtccagcttc cagtcacccc ctaccaggct taaggataga a 231
```

<210> 461

<211> 231

<212> DNA

<213> Homo sapiens

<400> 461

```
cgaggtttga gaagctctaa tctgcagggg agcccgagaag caggcggtct agggagggtc 60
ggtgtgtctc cagaagagtg tctgcatgcc agaggggaaa caggcgcttg tctgtcctgg 120
gtggggttca gtgaggagtg ggaatttggc tcagcagaac caagccgttg ggtgaataag 180
agggggattc catggcactg atagagccct atagtttcag agctgggaat t 231
```

<210> 462

156

<211> 231  
 <212> DNA  
 <213> Homo sapiens

<400> 462  
 aggtacccctc attgtagcca tgggaaaatt gatgttcagt ggggatcagt gaattaaatg 60  
 gggtcattgca agtataaaaa ttaaaaaaaa aagacttcct gccaatctc atatgatgtg 120  
 gaagaactgt tagagagacc aacagggtag tgggttagag atttccagag tcttacattt 180  
 tctagaggag gtatttaatt tcttctcact catccagtgt tgtatttagg a 231

<210> 463  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<400> 463  
 tactccagcc tggtagacaga gggagacct atcacccccc cccacccccc caaaaaaaaa 60  
 actgagttaga caggtgtctt cttggcatgg taagtcttaa gtcccctccc agatctgtga 120  
 catttgacag gtgtcttttc ctctggacct cgggtgcccc atctgagtga gaaaaggcag 180  
 tggggagggtg gactctccag tcgaagcggg atagaagccc gtgtgaaaag c 231

<210> 464  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<400> 464  
 gtactctaaag atttttctct agttgccttt tctgggtggg aaagtttaac cttagtgact 60  
 aaggacatca catatgaaga atgtttaagt tggagggtgg aaagtgaatt gcaaacaggg 120  
 cctgcttcag tgactgtgtg cctgtagtcc cagctactcg ggagtctgtg tgaggccagg 180  
 ggtgccagcg caccagctag atgtctgtga actcttaggc cccattttcc c 231

<210> 465  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<400> 465  
 catgttggtg tagctgtggt aatgctgget gcctctcaga cagggttaac ttcagctcct 60  
 gtggcaatt agcaacaaat tctgacatca tatttatggt ttctgtatct ttgttgatga 120  
 aggatggcac aatttttgc tctgttcata atatactcag attagtccag ctccatcaga 180  
 taaactggag acatgcagga cattagggtg gtgttgtagc tctgttaatg a 231

<210> 466  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<400> 466  
 caggtaacctc ttccattgg atactgtget agcaagcatg ctctccgggg tttttttaat 60  
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 cctgtgcaat caaatattgt ggagaattcc ctagctggag aagtcacaaa gactataggg 180  
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157

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158

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&lt;210&gt; 469

&lt;211&gt; 2229

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 469

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&lt;210&gt; 470

&lt;211&gt; 2426

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 470

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&lt;210&gt; 471

&lt;211&gt; 812

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 471

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```

160

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```

&lt;210&gt; 472

&lt;211&gt; 515

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(515)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 472

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&lt;210&gt; 473

&lt;211&gt; 5929

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 473

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162

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aaaaaaaaa 5829

```

&lt;210&gt; 474

&lt;211&gt; 1594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 474

```

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aaaatatasa tatatagaca tctcagataa tatatttga atagcaaat cctgttagaa 180
aataatagta cttaactaga tgagaataac aggtcgccat tatttgaatt gtctctatt 240
cgtttttcat ttgttgtgtt actcatgltt tacttatgag ggtatatat aacttccact 300
gttttcagaa ttattglatg cagtcagtat gagaatgcaa ttttaagtttc ctltgatgctt 360
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gaaggggaaga ggcctggggc tggagtattc gctt 1594

```

&lt;210&gt; 475

&lt;211&gt; 2414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; unsure

&lt;222&gt; (33)

&lt;223&gt; n=A,X,C or G

&lt;400&gt; 475

```

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aaaaaaaaaa aaaa 2414

```

&lt;219&gt; 476

&lt;211&gt; 3434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 476

```

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```

```

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```

&lt;210&gt; 477

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

165

&lt;400&gt; 477

```

Met Asp Gly His Thr Asp Ile Trp Arg Asn His Met Asp Thr Pro Pro
      5                      10                      15
His Tyr His Arg Asp Thr Asp Thr Arg Arg His His His Met Asp Thr
      20                      25                      30
Leu Ser His Tyr His Arg Asp Thr Arg His His Thr Val Thr Trp Thr
      35                      40                      45
His His His Thr His Glu His Thr Asp Thr Leu Pro Tyr Gly His Trp
      50                      55                      60
His Thr His Cys His Thr Val Thr Trp Thr His Leu His Thr Ile Thr
      65                      70                      75                      80
Pro Pro His Thr Leu Pro Val Asp Thr Arg Thr His Arg His Cys His
      85                      90                      95
Thr Asp Thr Gln Asn Thr Val Thr Arg Arg His His His Ala Asp Thr
      100                     105                     110
Pro Pro Leu Trp Cys Arg Leu Asn Tyr Pro Ala Gly Gly Thr Ala Val
      115                     120                     125
Ala Tyr Ser Cys Leu Ser Asp Trp Leu Ser Pro Gln
      130                     135                     140

```

&lt;210&gt; 478

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 478

```

Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
      5                      10                      15
Ser His Gly His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
      20                      25                      30
Gly Glu Ile Thr Trp Thr His His His Thr Ile Thr Gly Thr Gln Thr
      35                      40                      45
His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr
      50                      55                      60
Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr
      65                      70                      75                      80
Pro Thr His Cys His Met Asp Thr Gly Thr His Thr Ala Thr Leu Ser
      85                      90                      95
His Gly His Thr Ser Thr Pro Ser His His Thr His Cys Leu Trp
      100                     105                     110
Thr Gln Gly His Thr Asp Thr Val Thr Gln Ile His Lys Thr Leu Ser
      115                     120                     125
His Gly Asp Ile Thr Met Gln Ile His His His Ser Gly Ala Val
      130                     135                     140

```

&lt;210&gt; 479

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 479

```

Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
      5                      10                      15
Ser His Glu His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
      20                      25                      30

```

166

Gly Glu Ile Thr Leu Thr His His His Thr Ile Thr Gly Thr Gln Thr  
           35                  40                  45  
 His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Gly Thr  
           50                  55                  60  
 Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr  
           65                  70                  75                  80  
 Pro Thr His Cys His Met Asp Thr Ala Thr His Thr Ala Thr Leu Ser  
           85                  90                  95  
 His Gly His Thr Ser Ile Pro Ser His His His Thr His Cys His Val  
           100                 105                 110  
 Asp Thr Arg Thr His Arg His Cys His Thr Asp Thr Gln Asn Thr Val  
           115                 120                 125  
 Thr Arg Arg His His His Ala Asp Thr Pro Pro His Gly His Ser Thr  
           130                 135                 140  
 Arg His Ser Ala Thr Gln Ile His His His Thr Glu Met Arg Thr His  
           145                 150                 155                 160  
 Cys His Thr Asp Thr Thr Thr Ser Leu Pro His Phe His Val Ser Ala  
           165                 170                 175  
 Gly Gly Val Gly Pro Thr Thr Leu Gly Ser Asn Arg Glu Ile Thr Trp  
           180                 185                 190  
 Thr Tyr Ser Glu Gly Lys Ile Phe Phe Tyr Phe Leu Gly Asn Gln Ala  
           195                 200                 205  
 Arg Leu Cys Leu Lys Lys Arg Lys Lys Lys Gln Tyr Thr Val  
           210                 215                 220

&lt;210&gt; 480

&lt;211&gt; 144

&lt;212&gt; PAT

&lt;213&gt; Homo sapiens

&lt;400&gt; 480

Met Glu Pro Tyr Arg Gly Asn Glu Gln Pro Ser Gln Glu Gln Gly Val  
                   5                  10                  15  
 Cys Cys Leu Trp Gly Leu Gln Ser Leu Pro Gln Gly Ser Tyr Val Thr  
           20                  25                  30  
 Val Gly Phe Leu Val Val Lys Arg Gln Thr Ile Gly Arg Leu Glu Arg  
           35                  40                  45  
 Asp Phe Met Phe Lys Cys Arg Lys Gln Pro Gly Leu Pro Pro Ser Gly  
           50                  55                  60  
 Leu Cys Leu Leu Trp Pro Trp Pro Asn Leu Glu Phe Gly Arg Arg Gln  
           65                  70                  75                  80  
 Asp Arg Leu Thr Trp Ser Ser Val Ser Val Ala Gly Val Cys Ala Cys  
           85                  90                  95  
 Arg Ala Arg Pro Gly Trp Leu Gly Glu Gln Pro Ala Thr Ser Ala Gly  
           100                 105                 110  
 Val Arg Leu Glu Gln Val Glu Gln Pro Pro Ala His Pro Leu Gln Glu  
           115                 120                 125  
 Ala Gly Val Ala Arg Phe Pro Arg Pro Glu Trp Val Pro Pro Asn Gly  
           130                 135                 140

&lt;210&gt; 481

&lt;211&gt; 167

&lt;212&gt; PAT

&lt;213&gt; Homo sapiens

&lt;400&gt; 481



168

```

      20      25      30
Gly Phe Leu Val Ala Lys Arg Arg Thr Thr Gly Leu Leu Glu Glu Asp
   35      40      45
Phe Thr Phe Lys Cys Arg Lys Glu Pro Lys Leu Pro Ser Met Arg Leu
   50      55      60
Ser Leu Leu Trp Pro Trp Arg Asp Leu Lys Phe Val Pro Arg Glu Asp
   65      70      75      80
Lys Leu Thr Arg Ser Ser Val Ser Val Ala Gly Ala Tyr Ala Cys Arg
      85      90      95
Ala Gly Pro Gly Trp Leu Lys Glu Glu Pro Ala Thr Ser Ala Arg Val
   100      105      110
Arg Leu Val Glu Ala Glu His Pro Pro Pro His Pro Leu Glu Glu Val
   115      120      125
Gly Met Ala Arg Phe Pro Glu Pro Glu Cys Leu Pro Pro Tyr Cys
   130      135      140

```

<210> 484  
 <211> 30  
 <212> PRT  
 <213> Homo Sapien

```

      <400> 484
Thr Ala Ala Ser Asp Asn Phe Glu Leu Ser Glu Gly Gly Glu Gly Phe
  1      5      10      15
Ala Ile Pro Ile Gly Glu Ala Met Ala Ile Ala Gly Glu Ile
      20      25      30

```

<210> 485  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

```

      <400> 485
gggaagctta tcaactatgt gcgcctcttg c

```

31

<210> 486  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

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      <400> 486
gcgaattctc acgctgagta tttaggc

```

27

<210> 487  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 487

169

cccgaaattct taggtgcccc tcggaacggc ttcatc

36

<210> 488  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 488  
 gggaagcttc ttccccgggt gcaccagctg tgc

33

<210> 489  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 489  
 Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg Ala Val Tyr Leu Ala  
 1 5 10 15  
 Ser Val Ala

<210> 490  
 <211> 20 \*  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 490  
 Tyr Leu Ala Ser Val Ala Ala Phe Pro Val Ala Ala Gly Ala Thr Cys  
 1 5 10 15  
 Leu Ser His Ser  
 20

<210> 491  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 \* <223> Made in a lab

<400> 491  
 Thr Cys Leu Ser His Ser Val Ala Val Val Thr Ala Ser Ala Ala Leu  
 1 5 10 15  
 Thr Gly Phe Thr  
 20

<210> 492  
 <211> 20  
 <212> PRT

170

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 492

Ala	Leu	Thr	Gly	Phe	Thr	Phe	Ser	Ala	Leu	Gln	Ile	Leu	Pro	Tyr	Thr
1				5					10					15	
Leu	Ala	Ser	Leu												
			20												

&lt;210&gt; 493

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 493

Tyr	Thr	Leu	Ala	Ser	Leu	Tyr	His	Arg	Glu	Lys	Gln	Val	Phe	Leu	Pro
1				5					10					15	
Lys	Tyr	Arg	Gly												
			20												

&lt;210&gt; 494

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 494

Leu	Pro	Lys	Tyr	Arg	Gly	Asp	Thr	Gly	Gly	Ala	Ser	Ser	Glu	Asp	Ser
1				5					10					15	
Leu	Met	Ile	Ser												
			20												

&lt;210&gt; 495

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 495

Asp	Ser	Leu	Met	Thr	Ser	Phe	Leu	Pro	Gly	Pro	Lys	Pro	Gly	Ala	Pro
1				5					10					15	
Phe	Pro	Asn	Gly												
			20												

&lt;210&gt; 496

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

171

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 496

Ala	Pro	Phe	Pro	Asn	Gly	His	Val	Gly	Ala	Gly	Gly	Ser	Gly	Leu	Leu
1				5				10						15	
Pro	Pro	Pro	Pro	Ala											
				20											

&lt;210&gt; 497

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 497

Leu	Leu	Pro	Pro	Pro	Pro	Ala	Leu	Cys	Gly	Ala	Ser	Ala	Cys	Asp	Val
1				5				10						15	
Ser	Val	Arg	Val												
				20											

&lt;210&gt; 498

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 498

Asp	Val	Ser	Val	Arg	Val	Val	Val	Gly	Glu	Pro	Thr	Glu	Ala	Arg	Val
1				5				10						15	
Val	Pro	Gly	Arg												
				20											

&lt;210&gt; 499

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 499

Arg	Val	Val	Pro	Gly	Arg	Gly	Ile	Cys	Leu	Asp	Leu	Ala	Ile	Leu	Asp
1				5				10						15	
Ser	Ala	Phe	Leu												
				20											

&lt;210&gt; 500

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

172

&lt;223&gt; Made in a lab

&lt;400&gt; 500

Leu Asp Ser Ala Phe Leu Leu Ser Gln Val Ala Pro Ser Leu Phe Met  
 1 5 10 15  
 Gly Ser Ile Val  
 20

&lt;210&gt; 501

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 501

Phe Met Gly Ser Ile Val Gln Leu Ser Gln Ser Val Thr Ala Tyr Met  
 1 5 10 15  
 Val Ser Ala Ala  
 20

&lt;210&gt; 502

&lt;211&gt; 414

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(414)

&lt;223&gt; n=A,T,C or G

&lt;400&gt; 502

caccatggag	acaggcctgc	gctggctttt	cctggctcgt	gtgctcaaa	gtgtccaatg	60
tcagtgggtg	gaggagtcgg	ggggctgcct	ggtcagcct	gggacacott	tgacantcac	120
ctgtagagtt	tttggaaatg	acctcagtag	caatgcaatg	agctgggtcc	gccaggctcc	180
agggaaaggg	ctggaaatga	tggagccat	tgataattgt	ccacantacg	cgacctgggc	240
gaaagggcga	tttatnattt	ccaaacccn	gaccacgggtg	gatttgaasa	tgaccagtc	300
gacaaecgag	gacacggcca	cctatttttg	tggcagaatg	aatactggta	atagtggttg	360
gaagaatatt	tggggcccag	gcacctgggt	cacogtntcc	tcagggcacc	ctaa	414

&lt;210&gt; 503

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(379)

&lt;223&gt; n=A,T,C or G

&lt;400&gt; 503

atnagatggt	gcttggctca	aggtgtccag	tgctcgtcgg	tggaggagtc	cgsgggctgc	60
ctggtcacgc	ctgggacacc	cctgcactc	acctgcacgg	tttctggatt	ngacatcagt	120
agctatggag	tgagctgggt	cggccaggct	ccagggaagg	ggctggntat	catcggtaca	180
ttagtagtag	tggtacattt	tacgcagct	gggcgaagg	cggattcacc	atttccaaa	240
cctngaccac	ggtggatttg	aaatcacca	gtttgacaa	cgaggacacg	gccacctatt	300
ttgtgcccag	aggggggttt	aattataaag	acatttgggg	cccaggccac	ctggtcacgc	360

intccttagg gcaacctaa

379

<210> 504  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Made in a lab

<400> 504

Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr Phe Lys Glu  
1 5 10 15  
Asn Ser Ala

<210> 505  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Made in a lab

<400> 505

Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val Thr  
1 5 10 15  
Asn Thr Ala Asn  
20

<210> 506  
<211> 407  
<212> DNA  
<213> Homo Sapien

<400> 506

atggagacag	gcctgcgctg	gcttctctctg	gtcgcctgcgc	tcaaagggtgt	ccagtgtcag	60
tccgtggagg	agtcggggg	tgccttggtc	acgcctggga	cacccctgac	actcacctgc	120
accgtctctg	gattctccct	cagtagcaat	gcaatgatct	gggtccgcca	ggctccaggy	180
aaggggctgg	aatacatcgg	atacattagt	tatgggtgga	ggcctaacta	cgcgagctgg	240
gtgaaaggcc	gattcaccat	ctccaaaacc	tggaccacgg	tggatctgag	aatgaccagt	300
ctgacaacgg	aggcacgggc	caactatttc	tgtgccagaa	atagtgattt	tagtgggtatg	360
ttgtggggcc	caggcacccct	ggtcacccgc	tcctcagggc	aacctaa		407

<210> 507  
<211> 422  
<212> DNA  
<213> Homo Sapien

<400> 507

atggagacag	gcctgcgctg	gcttctctctg	gtcgcctgtgc	tcaaagggtgt	ccagtgtcag	60
tccgtggagg	agtcggggg	tgccttggtc	acgcctggga	cacccctgac	actcacctgt	120
accgtctctg	gattctccct	cagcaactac	gacctgaact	gggtccgcca	ggctccaggy	180
aaggggctgg	aatggatcgg	gatcattaat	tatgttggga	ggcgggacta	cgcgaactgg	240
gcasaaggcc	ggttcaccat	ctccaaaacc	tggaccacgg	tggatctcaa	gatcgccagt	300
cgcacacgg	aggcacgggc	caactatttc	tgtgccagag	ggtggaagtg	cgatgagtct	360
ggtcggtgct	tggcatctctg	gggccagggc	acccctggta	ccgtctcctt	agggcaacct	420

aa

422

<210> 509  
 <211> 411  
 <212> DNA  
 <213> Homo Sapien  
 <220>  
 <221> misc\_feature  
 <222> (1)...(411)  
 <223> n=A,T,C or G

<400> 508  
 atggagacag gccctgctgg cttctctctgg tcgctgtgct caaagggtgtc cagtgtcagt 60  
 cgggtggagga gtccgggggt cgcctggctc cgcctgggac acccctgaca ctccacctgca 120  
 cagtctctgg aatcgacctc agtagctact gcctgagctg ggctccggccag gctccaggga 180  
 aggggctgga atggatcgga atcattggta ctctgggtga cactactac gcgaggtggg 240  
 cgaagggtcg attcaccatc tccaasacct cgaccacggt gcatntgaaa atcnccagtc 300  
 cgacaaccga ggacacgggc acctatttct gtgccagaga tcttcgggat ggtagtagta 360  
 ctggttatta taaaatctgg ggcaccggca cctggtcac cgtctccttg g 411

<210> 509  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 509  
 Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser  
 1 5 10 15

<210> 510  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 510  
 Pro Glu Tyr Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile  
 1 5 10 15

<210> 511  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 511  
 Tyr His Pro Ser Met Phe Cys Ala Gly Gly Gly Glu Asp Gln Lys  
 1 5 10 15

175

<210> 512  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 512  
 Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu  
 1 5 10 15

<210> 513  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 513  
 Ala Pro Cys Gly Gln Val Gly Val Pro Asx Val Tyr Thr Asn Leu  
 1 5 10 15

<210> 514  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 514  
 Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser  
 1 5 10 15

<210> 515  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 515  
 Met Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg  
 1 5 10 15

<210> 516  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 516  
 Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln

176

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1           3           10           15
<210> 517
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 517
Glu Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met
1           5           10           15

<210> 518
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 518
Arg Ala Glu Pro Gly Thr Glu Ala Arg Arg His Tyr Asp Glu Gly
1           5           10           15

<210> 519
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 519
Arg Ala Glu Pro Gly Thr Glu Ala Arg Arg Asn Tyr Asp Glu Gly Cys
1           5           10           15
Gly

<210> 520
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in a lab

<400> 520
Val Gly Glu Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly Thr
1           5           10           15
Glu Ala Arg Arg His Tyr Asp Glu Gly
20           25

<210> 521
<211> 21
<212> PRT
<213> Artificial Sequence

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177

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 521

Ala	Pro	Phe	Pro	Asn	Gly	His	Val	Gly	Ala	Gly	Gly	Ser	Gly	Leu	Leu
1				5				10						15	
Pro	Pro	Pro	Pro	Ala											
				20											

&lt;210&gt; 522

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;400&gt; 522

Leu	Leu	Val	Val	Pro	Ala	Ile	Lys	Lys	Asp	Tyr	Gly	Ser	Gln	Glu	Asp
1				5					10					15	
Phe	Thr	Gln	Val												
				20											

&lt;210&gt; 523

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Made in a lab

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(254)

&lt;223&gt; Xaa = any amino acid

&lt;400&gt; 523

Met	Ala	Thr	Ala	Gly	Asn	Pro	Trp	Gly	Trp	Phe	Leu	Gly	Tyr	Leu	Ile
1				5				10						15	
Leu	Gly	Val	Ala	Gly	Ser	Leu	Val	Ser	Gly	Ser	Cys	Ser	Gln	Ile	Ile
			20					25					30		
Asn	Gly	Glu	Asp	Cys	Ser	Pro	His	Ser	Gln	Pro	Trp	Gln	Ala	Ala	Leu
			35				40					45			
Val	Met	Glu	Asn	Glu	Leu	Phe	Cys	Ser	Gly	Val	Leu	Val	His	Pro	Gln
			50			55				60					
Trp	Val	Leu	Ser	Ala	Thr	His	Cys	Phe	Gln	Asn	Ser	Tyr	Thr	Ile	Gly
65				70				75						80	
Leu	Gly	Leu	His	Ser	Leu	Glu	Ala	Asp	Gln	Glu	Pro	Gly	Ser	Gln	Met
			85					90						95	
Val	Gln	Ala	Ser	Leu	Ser	Val	Arg	His	Pro	Glu	Tyr	Asn	Arg	Pro	Leu
			100					105					110		
Leu	Ala	Asn	Asp	Leu	Met	Leu	Ile	Lys	Leu	Asp	Glu	Ser	Val	Ser	Glu
			115				120					125			
Ser	Asp	Thr	Ile	Arg	Ser	Ile	Ser	Ile	Ala	Ser	Gln	Cys	Pro	Thr	Ala
			130			135					140				
Gly	Asn	Ser	Cys	Leu	Val	Ser	Gly	Trp	Gly	Leu	Leu	Ala	Asn	Gly	Arg
145				150						155					160

178

Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu  
 165 170 175  
 Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys  
 180 185 190  
 Ala Gly Gly Gly Gln Xaa Gln Xaa Asp Ser Cys Asn Gly Asp Ser Gly  
 195 200 205  
 Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly  
 210 215 220  
 Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu  
 225 230 235 240  
 Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser  
 245 250

<210> 524  
 <211> 765  
 <212> DNA  
 <213> Homo sapien

<400> 524  
 atggccacag caggaaatcc ctggggctgg ttcttggggt acctcatcct tgggtgcgca 60  
 ggatcgctcg tctctggtag ctgcagccaa atcatasacg gggaggactg cagcccgac 120  
 tggcagccct ggcaggcggc actggtcctg gaaaacgaat tgttctgctc gggcgctctg 180  
 gtgcacccgc agtgggtgct gtccagccga cactgttcc agaactccta caccatcggt 240  
 ctgggctctg acagtcttga ggcgaccaa gagccaggga gccagatggt ggaggccagc 300  
 ctctccgtac ggcacccaga gtacaacaga ccttgcctcg ctacagacct catgctcctc 360  
 aagttggacg aatccgtgtc caggtctgac accatccgga gaatcagcat tgcctccag 420  
 tgcctacccg cggggaaetc ttgcctcggt tctggctggg gtctgctggc gaacggcaga 480  
 atgctacccg tgcctcagtg cgtgaacgtg tgggtgggtg ctgaggaggt ctgcagtaag 540  
 ctctatgccc cgtgtaccca cccagcatg ttctgcgccc gggagggga agaccagaag 600  
 gactcctgca acggtgactc tggggggccc ctgatctgca acgggtactt gcaggccctt 660  
 gtgtctttcg gaaaagcccc gtgtggccaa gttgggtgc caggtgtcta caccacctc 720  
 tgcaaatcca ctgagtggtat agagaaaacc gtccaggcca gttaa 765

<210> 525  
 <211> 234  
 <212> PRT  
 <213> Homo sapien

<400> 525  
 Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile  
 1 5 10 15  
 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile  
 20 25 30  
 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu  
 35 40 45  
 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln  
 50 55 60  
 Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly  
 65 70 75 80  
 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met  
 85 90 95  
 Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu  
 100 105 110  
 Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu  
 115 120 125  
 Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala  
 130 135 140  
 Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg

179

145		150		155		160									
Met	Pro	Thr	Val	Leu	Gln	Cys	Val	Asn	Val	Ser	Val	Val	Ser	Glu	Glu
				165				170						175	
Val	Cys	Ser	Lys	Leu	Tyr	Asp	Pro	Leu	Tyr	His	Pro	Ser	Met	Phe	Cys
				180				185						190	
Ala	Gly	Gly	Gly	Gln	Asp	Gln	Lys	Asp	Ser	Cys	Asn	Gly	Asp	Ser	Gly
				195				200						205	
Gly	Pro	Leu	Ile	Cys	Asn	Gly	Tyr	Leu	Gln	Gly	Leu	Val	Ser	Phe	Gly
				210				215						220	
Lys	Ala	Pro	Cys	Gly	Gln	Val	Gly	Val	Pro	Gly	Val	Tyr	Thr	Asn	Leu
				225				230						235	
Cys	Lys	Phe	Thr	Glu	Trp	Ile	Glu	Lys	Thr	Val	Gln	Ala	Ser		240
				245				250							

&lt;210&gt; 326

&lt;211&gt; 963

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 326

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atgagttcct gcaacttcac acatgccacc ttigtgctta ttggtatccc aggattagag 60
aaagcccaatt tctgggttgg cttcccccctc ctttccatgt atgtagtggc aatgtttgga 120
aactgcacog tgggtttcat cgtacgggacg gaacgcagcc tgcacgctcc gatgtacctc 180
tttctctgca tggttgcagc ctttgacctg gccttatcca catccaccat gcttaagatc 240
cttgcccttt tctgttttga ttcccgagag attagctttg aggcctgtct taccagatg 300
ttctttatct atgccccttc agccattgaa tccaccatcc tgcctggccat ggcctttgac 360
cgttatgttg ccactcgcga cccactgcgc catgctgcag tgcacacaa tacagtaaca 420
gccagatttg gcactgtggc tgtgttcagg ggtacccctt tttttttccc actgcctctg 480
ctgatcaagc ggtgtgacct ctgcactccc aatgtccctt cgcactccta ttgtgtccac 540
caggatgtaa tgaggttggc ctatgcagac accttgccca atgtggtata tggcttact 600
gccattctgc tggctcatgg cgtggacgta atgttcctt ccttgtccca ttttctgata 660
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caccgctttg gaaacagcct tcatccatt gtgcgtgttg tcatgggtga catctacctg 840
ctgctgcctc ctgtcatcaa tcccatcacc tatgtgtgca aaaccaacaa gatcagaaca 900
cgggtgcttg ctatgttcaa gatcagctgt gacaaggact tgcaggtctt gggaggtcaag 960
tga

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&lt;210&gt; 327

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 327

Met	Ser	Ser	Cys	Asn	Phe	Thr	His	Ala	Thr	Phe	Val	Leu	Ile	Gly	Ile
				5						10				15	
Pro	Gly	Leu	Gln	Lys	Ala	His	Phe	Trp	Val	Gly	Phe	Pro	Leu	Leu	Ser
				20				25					30		
Met	Tyr	Val	Val	Ala	Met	Phe	Gly	Asn	Cys	Ile	Val	Val	Phe	Ile	Val
				35				40					45		
Arg	Thr	Glu	Arg	Ser	Leu	His	Ala	Pro	Met	Tyr	Leu	Phe	Leu	Cys	Met
				50				55				60			
Leu	Ala	Ala	Ile	Asp	Leu	Ala	Leu	Ser	Thr	Ser	Thr	Met	Pro	Lys	Ile
				65				70			75			80	
Leu	Ala	Leu	Phe	Trp	Phe	Asp	Ser	Arg	Glu	Ile	Ser	Phe	Glu	Ala	Cys
				85				90						95	
Leu	Thr	Gln	Met	Phe	Phe	Ile	His	Ala	Leu	Ser	Ala	Ile	Glu	Ser	Thr
				100				105					110		

180

Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro  
 115 120 125  
 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly  
 130 135 140  
 Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu  
 145 150 155 160  
 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser  
 165 170 175  
 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu  
 180 185 190  
 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val  
 195 200 205  
 Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val  
 210 215 220  
 Leu Gln Leu Pro Ser Lys Ser Gln Arg Ala Lys Ala Phe Gly Thr Cys  
 225 230 235 240  
 Val Ser His Xle Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly  
 245 250 255  
 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg  
 260 265 270  
 Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro  
 275 280 285  
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&lt;210&gt; 531

&lt;211&gt; 879

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

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&lt;210&gt; 532

&lt;211&gt; 292

&lt;212&gt; PRS

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

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Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val Val Ala Trp Gly Asp

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182

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	100	105
Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser		
	115	120
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Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu		
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Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile		
	165	170
Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Val Tyr Asn Glu		
	180	185
Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu		
	195	200
Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Ile His Glu		
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Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu		
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Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys		
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Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu Glu Gln Asn Val Asp		
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183

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&lt;211&gt; 6082

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&lt;213&gt; Homo sapiens

&lt;400&gt; 535

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cattgtactt	ttttttactt	tggcaacaaa	tattttatac	tacaagatgc	tagttcattt	4380
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taggacagag ttgtcacagc tttttgttgg tgtttktatt gccccaaaaa ttacatgtta 4620
atttccattt atatcagggg attctattta cttgaagact gtgaagttgc ctttttgtct 4680
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&lt;210&gt; 537

&lt;211&gt; 1228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 537

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Met Leu Pro Val Tyr Gln Glu Val Lys Pro Asn Pro Leu Gln Asp Ala
      5              10              15
Asn Leu Cys Ser Arg Val Phe Phe Trp Trp Leu Asn Pro Leu Phe Lys
      20              25              30
Ile Gly His Lys Arg Arg Leu Glu Glu Asp Asp Met Tyr Ser Val Leu
      35              40              45
Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu Leu Gln Gly Phe Trp
      50              55              60
Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala Gln Lys Pro Ser Leu
      65              70              75              80
Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser Tyr Leu Val Leu Gly
      85              90              95
Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val Ile Gln Pro Ile Phe
      100             105             110
Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr Asp Pro Met Asp Ser
      115             120             125
Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr Val Leu Thr Phe Cys
      130             135             140
Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr Phe Tyr His Val Gln
      145             150             155             160
Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys His Met Ile Tyr Arg
      165             170             175

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Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly Lys Thr Thr Thr Gly  
 180 185 190  
 Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn Lys Phe Asp Gln Val  
 195 200 205  
 Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro Leu Gln Ala Ile Ala  
 210 215 220  
 Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile Ser Cys Leu Ala Gly  
 225 230 235 240  
 Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln Ser Cys Phe Gly Lys  
 245 250 255  
 Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr Phe Thr Asp Ala Arg  
 260 265 270  
 Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile Arg Ile Ile Lys Met  
 275 280 285  
 Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile Thr Asn Leu Arg Lys  
 290 295 300  
 Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys Leu Arg Gly Met Asn  
 305 310 315 320  
 Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile Val Phe Val Thr Phe  
 325 330 335  
 Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr Ala Ser Arg Val Phe  
 340 345 350  
 Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu Thr Val Thr Leu Phe  
 355 360 365  
 Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg  
 370 375 380  
 Arg Ile Gln Thr Phe Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg  
 385 390 395 400  
 Gln Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr  
 405 410 415  
 Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser  
 420 425 430  
 Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly  
 435 440 445  
 Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro  
 450 455 460  
 Ser His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln  
 465 470 475 480  
 Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly  
 485 490 495  
 Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala  
 500 505 510  
 Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile  
 515 520 525  
 Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn  
 530 535 540  
 Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp  
 545 550 555 560  
 Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu  
 565 570 575  
 Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His  
 580 585 590  
 Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp  
 595 600 605  
 Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly  
 610 615 620  
 Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn Glu Glu Ser Glu Gln  
 625 630 635 640

Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn Arg Thr Phe Ser Glu  
 645 650 655  
 Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro Ser Leu Lys Asp Gly  
 660 665 670  
 Ala Leu Glu Ser Gln Asp Thr Gln Asn Val Pro Val Thr Leu Ser Glu  
 675 680 685  
 Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln Ala Tyr Lys Asn Tyr  
 690 695 700  
 Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile Phe Leu Ile Leu Leu  
 705 710 715 720  
 Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln Asp Trp Trp Leu Ser  
 725 730 735  
 Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val Thr Val Asn Gly Gly  
 740 745 750  
 Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp Tyr Leu Gly Ile Tyr  
 755 760 765  
 Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly Ile Ala Arg Ser Leu  
 770 775 780  
 Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln Thr Leu His Asn Lys  
 785 790 795 800  
 Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu Phe Phe Asp Arg Asn  
 805 810 815  
 Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys Asp Ile Gly His Leu  
 820 825 830  
 Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe Ile Gln Thr Leu Leu  
 835 840 845  
 Gln Val Val Gly Val Val Ser Val Ala Val Ala Val Ile Pro Trp Ile  
 850 855 860  
 Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe Ile Phe Leu Arg Arg  
 865 870 875 880  
 Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg Leu Gln Ser Thr Thr  
 885 890 895  
 Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser Leu Gln Gly Leu Trp  
 900 905 910  
 Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys Gln Glu Leu Phe Asp  
 915 920 925  
 Ala His Gln Asp Leu His Ser Glu Ala Trp Phe Leu Phe Leu Thr Thr  
 930 935 940  
 Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile Cys Ala Met Phe Val  
 945 950 955 960  
 Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala Lys Thr Leu Asp Ala  
 965 970 975  
 Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu Thr Leu Met Gly Met  
 980 985 990  
 Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val Glu Asn Met Met Ile  
 995 1000 1005  
 Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu Glu Lys Glu Ala Pro  
 1010 1015 1020  
 Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp Pro His Glu Gly Val  
 1025 1030 1035 1040  
 Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser Pro Gly Gly Pro Leu  
 1045 1050 1055 1060  
 Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Gln Lys Val Gly  
 1065 1070  
 Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile Ser Ala Leu  
 1075 1080 1085  
 Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile Asp Lys Ile Leu  
 1090 1095 1100

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Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys Lys Met Ser Ile Ile  
 1105 1110 1115 1120  
 Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met Arg Lys Asn Leu Asp  
 1125 1130 1135  
 Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp Asn Ala Leu Gln Glu  
 1140 1145 1150  
 Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro Gly Lys Met Asp Thr  
 1155 1160 1165  
 Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val Gly Gln Arg Gln Leu  
 1170 1175 1180  
 Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile  
 1185 1190 1195 1200  
 Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln  
 1205 1210 1215  
 Lys Lys Ser Gly Arg Asn Leu Pro Thr Ala Pro Cys  
 1220 1225

&lt;210&gt; 538

&lt;211&gt; 1261

&lt;212&gt; PAT

&lt;213&gt; Homo sapiens

&lt;400&gt; 538

Met Tyr Ser Val Leu Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu  
 5 10 15  
 Leu Gln Gly Phe Trp Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala  
 20 25 30  
 Gln Lys Pro Ser Leu Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser  
 35 40 45  
 Tyr Leu Val Leu Gly Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val  
 50 55 60  
 Ile Gln Pro Ile Phe Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr  
 65 70 75 80  
 Asp Pro Met Asp Ser Val Ala Leu Asn Thr Ala Tyr Ala Tyr Thr  
 85 90 95  
 Val Leu Thr Phe Cys Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr  
 100 105 110  
 Phe Tyr His Val Gln Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys  
 115 120 125  
 His Met Ile Tyr Arg Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly  
 130 135 140  
 Lys Thr Thr Thr Gly Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn  
 145 150 155 160  
 Lys Phe Asp Gln Val Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro  
 165 170 175  
 Leu Gln Ala Ile Ala Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile  
 180 185 190  
 Ser Cys Leu Ala Gly Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln  
 195 200 205  
 Ser Cys Phe Gly Lys Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr  
 210 215 220  
 Phe Thr Asp Ala Arg Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile  
 225 230 235 240  
 Arg Ile Ile Lys Met Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile  
 245 250 255  
 Thr Asn Leu Arg Lys Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys  
 260 265 270  
 Leu Arg Gly Met Asn Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile

275	280	285
Val Phe Val Thr Phe Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr		
290	295	300
Ala Ser Arg Val Phe Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu		
305	310	315
Thr Val Thr Leu Phe Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala		
	325	330
Ile Val Ser Ile Arg Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile		
	340	345
Ser Gln Arg Asn Arg Gln Leu Pro Ser Asp Gly Lys Lys Met Val His		
	355	360
Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Gln Thr Pro Thr		
	370	375
Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val		
	385	390
Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu		
	405	410
Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser Val His Gly Arg Ile		
	420	425
Ala Tyr Val Ser Gln Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser		
	435	440
Asn Ile Leu Phe Gly Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val		
	450	455
Ile Lys Ala Cys Ala Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly		
	465	470
Asp Leu Thr Val Ile Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln		
	485	490
Lys Ala Arg Val Asn Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile		
	500	505
Tyr Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg		
	515	520
His Leu Phe Glu Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr		
	530	535
Ile Leu Val Thr His Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile		
	545	550
Leu Ile Leu Lys Asp Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu		
	565	570
Phe Leu Lys Ser Gly Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn		
	580	585
Glu Glu Ser Glu Gln Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn		
	595	600
Arg Thr Phe Ser Glu Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro		
	610	615
Ser Leu Lys Asp Gly Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro		
	625	630
Val Thr Leu Ser Glu Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln		
	645	650
Ala Tyr Lys Asn Tyr Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile		
	660	665
Phe Leu Ile Leu Leu Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln		
	675	680
Asp Trp Trp Leu Ser Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val		
	690	695
Thr Val Asn Gly Gly Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp		
	705	710
Tyr Leu Gly Ile Tyr Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly		
	725	730
Ile Ala Arg Ser Leu Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln		

740	745	750
Thr Leu His Asn Lys Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu		
755	760	765
Phe Phe Asp Arg Asn Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys		
770	775	780
Asp Ile Gly His Leu Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe		
785	790	795
Ile Gln Thr Leu Leu Gln Val Val Gly Val Val Ser Val Ala Val Ala		
800	805	810
Val Ile Pro Trp Ile Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe		
820	825	830
Ile Phe Leu Arg Arg Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg		
835	840	845
Leu Glu Ser Thr Thr Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser		
850	855	860
Leu Gln Gly Leu Trp Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys		
865	870	875
Gln Glu Leu Phe Asp Ala His Gln Asp Leu His Ser Glu Ala Trp Phe		
880	885	890
Leu Phe Leu Thr Thr Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile		
900	905	910
Cys Ala Met Phe Val Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala		
915	920	925
Lys Thr Leu Asp Ala Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu		
930	935	940
Thr Leu Met Gly Met Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val		
945	950	955
Glu Asn Met Met Ile Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu		
960	965	970
Glu Lys Glu Ala Pro Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp		
980	985	990
Pro His Glu Gly Val Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser		
995	1000	1005
Pro Gly Gly Pro Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser		
1010	1015	1020
Gln Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser		
1025	1030	1035
Leu Ile Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp		
1040	1045	1050
Ile Asp Lys Ile Leu Thr Thr Gln Ile Gly Leu His Asp Leu Arg Lys		
1055	1060	1065
Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met		
1070	1075	1080
Arg Lys Asn Leu Asp Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp		
1085	1090	1095
Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro		
1100	1105	1110
Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val		
1115	1120	1125
Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn		
1130	1135	1140
Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr		
1145	1150	1155
Asp Glu Leu Ile Gln Lys Lys Ile Arg Glu Lys Phe Ala His Cys Thr		
1160	1165	1170
Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys		
1175	1180	1185
Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr		
1190	1195	1200

193

		1205		1210		1215
Val	Leu	Leu	Gln	Asn	Lys	Glu
		1220		1225		1230
Leu	Gly	Lys	Ala	Gln	Ala	Ala
		1235		1240		1245
Trp	Gly	Phe	Thr	Met	Leu	Ala
		1250		1255		1260

<210> 539  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 539  
 Cys Leu Ser His Ser Val Ala Val Val Thr  
 1 5 10

<210> 540  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 540  
 Ala Val Val Thr Ala Ser Ala Ala Leu  
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<210> 541  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 541  
 Leu Ala Gly Leu Leu Cys Pro Asp Pro Arg Pro Leu Glu Leu  
 5 10

<210> 542  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 542  
 Thr Gln Val Val Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala  
 5 10 15

<210> 543  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<400> 543  
 Phe Met Gly Ser Ile Val Gln Leu Ser Gln Ser Val  
 5 10

194

<210> 544  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 544  
 Thr Tyr Val Pro Pro Leu Leu Leu Glu Val Gly Val Glu Glu Lys Phe  
                                   5                                  10                                  15  
 Met Thr

<210> 545  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 545  
 Met Asp Arg Leu Val Gln Arg Phe Gly Thr Arg Ala Val Tyr Leu Ala  
                                   5                                  10                                  15  
 Ser Val

<210> 546  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<400> 546  
 Phe Val Gly Glu Gly Leu Tyr Gln Gly Val Pro Arg Ala Glu Pro Gly  
                                   5                                  10                                  15  
 Thr Glu Ala Arg Arg His Tyr Asp Glu Gly Val Arg Met  
                                   20                                  25

<210> 547  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 547  
 Val Ala Glu Glu Ala Ala Leu Gly Pro Thr Glu Pro Ala Glu Gly Leu  
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 Ser Ala Pro Ser Leu Ser Pro His Cys Cys Pro Cys Arg Ala Arg Leu  
                                   20                                  25                                  30  
 Ala Phe Arg Asn Leu Gly Ala Leu Leu Pro Arg Leu His Gln Leu Cys  
                                   35                                  40                                  45  
 Cys Arg Met Pro Arg Thr Leu Arg Arg Leu  
                                   50                                  55

<210> 548  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 548  
 His Asp Trp Asp Thr Ser Ala Leu Ala Pro Tyr Leu Gly Thr Gln Glu

195

5 10 15

Gln Cys

<210> 549  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 549  
 Leu Gln Ala Leu Leu Ser Asp Leu Phe Arg Asp Pro Asp His Cys Arg  
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Gln Ala

<210> 550  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 550  
 Ser Asp His Trp Arg Gly Arg Tyr Gly Arg Arg Arg Pro Phe  
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<210> 551  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Made in a lab

<400> 551  
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<210> 552  
 <211> 2577  
 <212> DNA  
 <213> Homo sapiens

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 tcataccagt ccacggacta ttatgaacca caccacacag gaggaggtga gcactaggca 180  
 agccasggaa gcttcacctg tacttacagc cacacggcat ggctcattt acagcctgaa 240  
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```

&lt;210&gt; 553

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 553

```

Ser Ile Cys Asn Met Thr Cys Ala Ser Val Phe Phe Cys Asp Gln Lys
          5              10              15
Phe Leu Thr Phe Ser Phe Leu Ser Met Val Glu Pro Pro Arg Ala Gly
          20              25              30
Val Leu Asn Ser Gln Ala Thr Asp Ser Tyr Gln Ser Thr Asp Tyr Tyr
          35              40              45
Glu Pro His His Thr Gly Gly Gly Glu His
          50              55

```

&lt;210&gt; 554

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 554

```

Leu Gln Lys Asn Lys Leu Arg Ala Ser Thr Asp Ser Thr Leu Trp Ile
          5              10              15
Cys Ala Ala Glu Ala Ser Thr Lys Pro Tyr Phe Tyr Thr Cys Leu Val
          20              25              30
Met Leu His Gly Gln Gly Leu Ala Leu Leu Ser Pro Thr Asn Leu Pro
          35              40              45
Glu Ile Leu Arg Phe Leu Phe Asn Gly Phe Leu
          50              55

```

197

<210> 555  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 555  
 Leu Gly Arg Phe Ser Leu Ser Cys Lys Ser Gly His Ser Arg Gly Gln  
                   5                  10                  15  
 Pro Gln Leu Gly Ala Thr Ala Gln Gly Lys Val His Met Gly Leu Ser  
                   20                  25                  30  
 Thr Ala Gln Gly Ser Ile Gln Asp Ile Lys Val Pro His Ser Ile Asp  
                   35                  40                  45  
 Leu Val Ala Lys Lys Lys Lys Gln Thr Leu Ile Ser Phe Cys His Pro  
                   50                  55                  60  
 Ser Asp Pro Leu Gln Leu Leu  
                   65                  70

<210> 556  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 556  
 Asn His Pro Glu Gln Gly Ser Ser Thr Pro Arg Pro Gln Thr His Thr  
                   5                  10                  15  
 Ser Pro Arg Thr Ile Met Asn His Thr Thr Gln Glu Glu Val Ser Thr  
                   20                  25                  30  
 Arg Gln Ala Lys Glu Ala Ser Pro Val Leu Thr Ala Thr Arg His Gly  
                   35                  40                  45  
 Ser Tyr Tyr Ser Leu Asn Ser Ala Ser Thr Gln Ile Ser Asp Asn Ile  
                   50                  55                  60  
 Arg Asn Ser Leu Gln His Glu Pro Cys Cys Glu Leu Pro Ile Arg Arg  
                   65                  70                  75                  80  
 Ile

<210> 557  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 557  
 Ser Leu Ser Ala Thr Pro Leu Thr Leu Trp Asn Ser Ser Asp Pro Leu  
                   5                  10                  15  
 Glu Gln Ala Tyr Leu Ile Ser Ala Arg Glu Lys Thr Asn Asn Gly Leu  
                   20                  25                  30  
 Lys Gly Ser Leu Thr Met Lys Val Ser Ala Asn Ser Trp Leu Arg Cys  
                   35                  40                  45  
 Gly Phe His Ile Arg Phe  
                   50

<210> 558  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

198

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(77)

&lt;223&gt; Xaa = Any amino acid

&lt;400&gt; 558

```

Asn Asp Arg Asp Arg Asn Ser Asn Lys Val Ile Xaa Lys Ala Asn Leu
      5              10              15
Ile Tyr Phe Thr Asn Leu Thr Ser Cys Leu Ser Val Gln Asn Gln Thr
      20              25              30
Phe Thr Cys Thr Lys Arg His Lys His Leu Gln Cys Ser Ser Val His
      35              40              45
Leu Cys Lys Ile Pro Pro Arg Leu Lys Gly Arg Asp Lys Lys Lys Lys
      50              55              60
Pro Ser Tyr Leu Ser Gly Val Leu His Ser Arg Ser Tyr
      65              70              75

```

&lt;210&gt; 559

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 559

```

Thr Leu Pro Pro Leu Arg Ser Val Ile Thr Leu Glu Thr His Trp Ser
      5              10              15
Thr Asn Pro Val Val Asn Cys Leu Ser Glu Gly Ser Arg Leu Cys Ala
      20              25              30
Ser Tyr Glu Asn Leu Met Pro Asp Asp Leu Ser Leu Ser His Phe Ala
      35              40              45
Pro Arg
      50

```

&lt;210&gt; 560

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 560

```

Ile Gly Ser Leu Lys Gly Pro Thr Thr Ala Gly Ser His Cys Ser Gly
      5              10              15
Glu Gly Ser Tyr Gly Thr Phe Tyr Cys Pro Arg Phe Tyr Thr Gly Tyr
      20              25              30
Lys Gly Ala Ser Gln Tyr Arg Ser Gly Ser Lys Glu Glu Glu Thr Asn
      35              40              45
Thr Asp Leu Phe Leu Pro Pro Leu
      50              55

```

&lt;210&gt; 561

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; VARIANT

199

&lt;222&gt; (1)...(57)

&lt;223&gt; Xaa = Any amino acid

&lt;400&gt; 561

```

Val Leu His Leu Asp Gln Met Asn Asn Val Gly Ile Xaa Met Asp Lys
      5                      10                      15
Gly Leu Lys Ser Pro Glu Ile Lys Asn Pro Ala Pro Thr Gly Thr Ser
      20                      25                      30
Asn Leu Ser Cys Phe Leu Ser Xaa Phe Trp Leu Met Gln Gly Thr Asn
      35                      40                      45
Ser Leu Pro Arg Glu Asn Tyr Leu Asn
      50                      55

```

&lt;210&gt; 562

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(59)

&lt;223&gt; Xaa = Any amino acid

&lt;400&gt; 562

```

Asp Leu Tyr Pro Xaa Arg Ser Gln His Cys Ser Phe Asp Pro Ser Val
      5                      10                      15
Ala Pro Met His Gly Ile Lys Asn Ser Ile Thr Ser Leu Ile Phe Leu
      20                      25                      30
Ile Ser Tyr Leu Xaa Leu Glu Met Ser Ser Leu Ser Glu Ser Leu Val
      35                      40                      45
Leu Ser Ser Gly Asp Tyr Val Leu Asp Thr Pro
      50                      55

```

&lt;210&gt; 563

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 563

```

Cys Phe Leu Phe Pro Tyr Leu Trp Leu Tyr Ala Gln Pro Leu Phe Pro
      5                      10                      15
Lys Gln Gln Pro Pro Ala Leu Ala Pro Gly His Pro Asp Phe Ile His
      20                      25                      30
Thr Gln Asa Glu Gln Ile Asp Pro Ser Pro His Ile Gln Asn Leu Met
      35                      40                      45
Trp Asn Pro His Leu Ser Gln Glu Leu Ala Glu Thr Phe Met Val Arg
      50                      55                      60
Asp Pro Leu Arg Pro Leu Leu Val Phe Ser Leu Ala Asp Ile Arg
      65                      70                      75

```

&lt;210&gt; 564

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 564

200

```

Ala Cys Ser Lys Gly Ser Glu Glu Phe Gln Arg Val Arg Gly Val Ala
      5      10      15
Glu Arg Asp Gln Cys Leu Phe Leu Leu Leu Cys Tyr Gln Ile Tyr Thr
      20      25      30
Val Arg His Leu Tyr Ile Leu Tyr Arg Thr Leu Gly Ser Arg Lys Ser
      35      40      45
His Met Asn Leu Pro Leu Ser Ser Gly Ser Gln Leu Trp Leu Ala Pro
      50      55      60

```

&lt;210&gt; 565

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(57)

&lt;223&gt; Xaa = Any amino acid

&lt;400&gt; 565

```

Leu Tyr Tyr Cys Ser Tyr Leu Cys His Phe Arg Thr Ala Leu Ile Leu
      5      10      15
Ala Val Cys Cys Gly Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln
      20      25      30
Asn Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu
      35      40      45
Tyr Ala Val Ser Ser Xaa His Asn Val
      50      55

```

&lt;210&gt; 566

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 566

```

Ile Leu Leu Glu Phe Phe Arg Asn Gln Arg Gly Ser Leu Asn Pro Arg
      5      10      15
Lys Thr Val Pro Phe Ile Lys Ser Glu Gly Gly Glu Lys Lys Gly His
      20      25      30
Cys Asn His Ser Val Val Ser Ile Asp Ser Ala Ala Ala Leu Leu Pro
      35      40      45
Leu Lys Leu Val Leu Leu Pro
      50      55

```

&lt;210&gt; 567

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

```

Tyr Ser Asp Phe Asp Val Phe Cys Ser His Thr Tyr Gly Tyr Met Leu
      5      10      15
Ser His Cys Ser Gln Ser Ser Ser Pro Leu Leu Trp Pro Leu Gly Ile
      20      25      30
Leu Thr Leu Ser Thr His Lys Met Ser Lys Leu Thr Leu Pro Pro Ile

```

201

35 40 45  
 Phe Arg Thr  
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 <210> 568  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens  
 <400> 568  
 Lys Val Gly Glu Tyr Ile Leu Gln Ser Leu Leu Arg Ile Arg Lys Ile  
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 Tyr Val Ala Phe Asn Ser Val Pro Ser Thr Cys Leu Leu Ala Ser Leu  
 20 25 30  
 Thr Glu Thr Pro Val Thr Thr Ile Leu Thr Ile Ile Ile Asn Leu Thr  
 35 40 45  
 Cys Phe Gln His Ala Glu Ser Ser Tyr Leu Phe Tyr Pro Leu Ala Asp  
 50 55 60  
 Phe Leu Leu Gln His Ile Ser Leu Gly Lys Leu  
 65 70 75

<210> 569  
 <211> 4809  
 <212> DNA  
 <213> Homo sapiens

<400> 569  
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gggcaaatte gagcttccca tattgccaag gtgtatcaac cacactgata ycaygatctc 3660
tcttttgaat taattttcca gttcacacct accatttatt tcatgattgg tttcagactt 3720
gttctctctg gaacacactc ctaacaagca ccttgcagg aatgaagaca caccacacac 3780
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cctataatgg ggtactttca ctcacctaa agtgaggaca aaatacttga aagcatgagc 3900
ccagtgcctg taggtgtgca attaacctca gaccaaggaa gtgccgaacg catctggctt 3960
thagcaagge acctgacaaa gtccctcagg atgtttttgt acatgagcta gagaatgta 4020
cctggagaaac agcttctact gccagatgat cttactcaaa agatgcagat taagcaaat 4080
atcaacccaa aggggtgttc ctgatggccc accagccctt gtgcttggct cgtttcttat 4140
gtttcctaga ttgtgtttca gacttgetec tctgcagac actccctaac cagcatcctt 4200
gcagaaactt ggtgaactag aaaaggcctg tgtgggtcac gtggccccc aacaccacag 4260
cagtgtctaa ggtatgcgtg ggagcctgca cagcaggagc ggggtcttct ggagccccc 4320
atgagatgca aagggcagtg gacaaggagc caaggagggt ggctctagtc acgtgggtat 4380
ggtgccagct tgaggatgct gggcagctc cgagccgtct gcttctctag taccacagtt 4440
accactgtct gttacctcgc gagtcaagt gcttcaagtg agacagctac gagacagggc 4500
cctggaaact ggaaaatgcy aagttaaatgt catgcacaa tgttgttcac attttatctc 4560
aatcaatttt accaaatcag gctaaaacct ggtattctat aacgtcttgg gctgtacaaa 4620
ttgttctctg aaatgactca gagactttt ctgaattggc ttccatcagc caagcatttc 4680
ttcagaactg gaaaatgct ttaaatttgg ctgtgtcatg attattaaaa cactctgtac 4740
attttttatt attgaaatta acacattgce tactttttta aaattggaaa aagaaaaaaa 4800
aaaaaaaaa 4809

```

&lt;210&gt; 570

&lt;211&gt; 951

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 570

203

```

aaaattgaat attgagatgc caittctttag tgttaccttt ttaccacaca tgtgtttctg 60
aaaattatgg aattttattc atcttaaaaa ttggaccggg ccttatttac catctttaat 120
ccatttttagt actatgggtg agtacatgga attgaagtet ggcttaaatc ttcagaaagt 180
tatatactca ttttatttta tttttttgag acagagtctc gctgtgtcac ccaggctgga 240
gtgcgggtgc acaatcttgg ctcaactgca cctctgagtc ccaggttcaa gogatactca 300
tgccctgggc tcttgagtag ctgggactac agcggtgca caccacatct ggctaactct 360
tttttgtatt tttagtagag aeggggttcc actgtggtct ccatctcttg acctgtgat 420
ccgcctgctt cccaaagtgc tgggattaca ggcctgagcc accgcacaca gctgggctg 480
ggtaatttat aaagaaaga ggtttaatga ctacagttc cgcattggtg gagaggctc 540
aggaaactta caatcatggt ggaaggcgaa ggggaagcaa ggcacgtctt acatgggtgc 600
aggagagaac gagtgggggg ggagactgac acaaaacttt tttttttgag acaagagtct 660
ggcctgttgc cccaggctgg agtgcagtgg ctgatctca gctcaactga acctctgct 720
cacagtttca agcaattctc atgcttcagc ctcccgata gctgggacca caggtatgca 780
ccacacacac taqctaatct ttgtagtctt agtagagatg ggtctctcct atgttgctca 840
ggctgggtca aaactcttgg gctccagcaa tccgctgccc ttggcctccc aaagtgttgg 900
ggttacagga ataagccacc acatccagcc tgcacatac ttttaacta t 960

```

&lt;210&gt; 571

&lt;211&gt; 919

&lt;212&gt; DNR

&lt;213&gt; Homo sapiens

&lt;400&gt; 571

```

cagcttaaaa atgggtttctt gaaatcagtg attagcattc actcaccagt accctacta 60
aggggttaggc actggtttgt actcctggga atacaggagt acaccagaat ttatttctgc 120
ttattgcttt tgttgcaaat gcggtggctt catctgagga attctagaat tcagagggtg 180
tagccttcca ctctgctgtc ttgctatctg ctctcattgc atcgttttaa cctgcattct 240
gaaagatggt tctcaggttt tctcttgagc attttcttct tttctgattc tgacaatggt 300
ttaaatcatt gtactgttgt tatcatttct ctgcatttat tttaccatc ttcttttga 360
acttgctcta ttgtctttta atttctgctt gttcttttat gctttcaact tcataaataa 420
catgttttct caaatctctt tgtgaattcc agagaggggc aggcacgggt gctcacatct 480
gtaatccacg cactttgggg aggtgagac ggggtggatca cttagggtca ggagtttag 540
accagcctgg ccaacatggt gaaatccctt ttccctaaaa atacaaaat taccaggcca 600
tggtggcggg cgcctgtaat cccaggtact cgggaggctg agggaggaga atcgtttgaa 660
cctgggaggc tgaggaggga gaatcgcttg aaccggggag gcagaggttg cagtgaacgg 720
agatcatggt gctgcactcc agcctgggtc acagagcaag actctgctc aaaaacaaac 780
aaatasacaa acaaaacaaac aaacagaga gattttgct 819

```

&lt;210&gt; 572

&lt;211&gt; 203

&lt;212&gt; DNR

&lt;213&gt; Homo sapiens

&lt;400&gt; 572

```

tatagaatac tcaagctatg cateagctt ggtaccgagc tggatccac tatttacggc 60
cgccagtgtg ctggaattcg ccttagctc ggtaccacta gtccagtgtg gtggaattcc 120
attgtgttgg gcccaacaca atggagccac caccctcagc ctgccacata cttttaact 180
atcaggtctc atgagaactc atg 203

```

&lt;210&gt; 573

&lt;211&gt; 132

&lt;212&gt; FRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 573

```

Met Val Glu Gly Glu Glu Ala Arg His Val Leu His Gly Gly Arg
          5              10              15
Arg Glu Arg Val Arg Gly Glu Thr Ala Thr Asn Phe Phe Phe Leu Arg

```

204

	20		25		30										
Gln	Glu	Ser	Gly	Pro	Val	Ala	Gln	Ala	Gly	Val	Gln	Trp	His	Asp	Leu
	35					40					45				
Ser	Ser	Leu	Gln	Pro	Leu	Pro	His	Arg	Phe	Lys	Gln	Phe	Ser	Cys	Leu
	50					55					60				
Ser	Leu	Pro	His	Ser	Trp	Asp	His	Arg	Tyr	Ala	Pro	Pro	His	Leu	Ala
	65				70					75				80	
Asn	Phe	Cys	Ser	Phe	Ser	Arg	Asp	Gly	Val	Ser	Leu	Cys	Cys	Ser	Gly
			85						90					95	
Trp	Ser	Lys	Thr	Pro	Gly	Leu	Gln	Gln	Ser	Ala	Cys	Leu	Gly	Leu	Pro
	100							105					110		
Lys	Cys	Trp	Gly	Tyr	Arg	His	Lys	Pro	Pro	His	Pro	Ala	Cys	His	Ile
	115					120						125			
Leu	Leu	Asn	Tyr												
	130														

&lt;210&gt; 574

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 574

Met	Thr	His	Ser	Ser	Ala	Trp	Leu	Glu	Arg	Pro	Gln	Glu	Thr	Tyr	Asn
			5						10					15	
His	Gly	Gly	Arg	Arg	Arg	Gly	Ser	Lys	Ala	Arg	Leu	Thr	Trp	Trp	Gln
	20							25					30		
Glu	Arg	Thr	Ser	Glu	Gly	Gly	Asp	Cys	His	Lys	Leu	Phe	Phe	Phe	Glu
	35					40						45			
Thr	Arg	Val	Trp	Pro	Cys	Cys	Pro	Gly	Trp	Ser	Ala	Val	Ala		
	50					55					60				

&lt;210&gt; 575

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

Met	Val	Lys	Ser	Arg	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Thr	Gln	Ala	Trp
			5					10						15	
Trp	Arg	Ala	Pro	Val	Ile	Pro	Gly	Thr	Arg	Glu	Ala	Glu	Gly	Gly	Glu
	20						25						30		
Ser	Leu	Glu	Pro	Gly	Arg	Leu	Arg	Glu	Glu	Asn	Arg	Leu	Asn	Pro	Gly
	35					40						45			
Gly	Arg	Gly	Cys	Ser	Glu	Pro	Arg	Ser	Cys	Cys	Cys	Thr	Pro	Ala	Trp
	50					55					60				
Ser	Thr	Glu	Gln	Asp	Ser	Ala	Ser	Lys	Thr	Asn	Lys				
	65				70					75					

&lt;210&gt; 576

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; VARIANT

205

&lt;222&gt; (1)...(68)

&lt;223&gt; Xaa = Any Amino Acid

&lt;400&gt; 576

```

Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr
      5              10              15
Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr
      20              25              30
Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln
      35              40              45
Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn
      50              55              60
Pro Gly Tyr Ser
65

```

&lt;210&gt; 577

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 577

```

Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg
      5              10              15
Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro
      20              25              30
Pro Ala Pro Val Pro Gly Ser Phe Pro Met Phe Pro Arg Phe Gly Phe
      35              40              45
Arg Leu Ala Pro Pro Ala Asp Thr Pro
      50              55

```

&lt;210&gt; 578

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

```

Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His
      5              10              15
His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr
      20              25              30
Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr
      35              40              45
Gln Pro His
50

```

&lt;210&gt; 579

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 579

```

Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu
      5              10              15
Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr
      20              25              30
Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His
      35              40              45
Ile Ala Lys Val Tyr Gln Pro His

```

206

50

55

&lt;210&gt; 580

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 580

```

Met Glu Leu Arg Thr Lys Ala Leu Arg Thr Ala Gln Gln Leu Thr Ser
      5              10              15
Cys Val Thr Ala Leu Lys Ala Ala Gly Pro Pro Leu Thr Phe Trp Lys
      20              25              30
Gly Lys Trp Val Gln Cys Cys Leu Pro Leu Trp Gly Leu Leu Gly Ser
      35              40              45
His Ala Phe Tyr Ile Tyr Ala Val Asp Ile Phe Met Phe Pro Gly Ser
      50              55              60
Phe Ile His
      65

```

&lt;210&gt; 581

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 581

```

Met Leu Glu Val Lys Phe Glu Val Ser Leu Arg Pro Thr Gly Asn Glu
      5              10              15
Thr Ala Gly Gln Thr His Gly Thr Gln Asp Lys Gly Ser Lys Asp Ser
      20              25              30
Thr Ala Ala Asp Ile Leu Cys Asp Ser Leu Glu Ser Ser Arg Pro Ala
      35              40              45
Ala His Ile Leu Glu Gly Lys Met Gly Thr Met Leu Ser Ala Thr Leu
      50              55              60
Gly Pro Ser Trp Val Thr Cys Ile Leu His Leu Cys Ser
      65              70              75

```

&lt;210&gt; 582

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 582

```

Met Leu Phe Leu Gln Thr Ile Asp Thr Lys Cys Thr Gly Ile Glu Ile
      5              10              15
Asn Arg Asn Trp Ser Lys Val Trp His Thr His Ser His Val Asp Val
      20              25              30
Lys Leu Cys Leu Glu Phe Leu Cys Gly Val Trp Phe Gly Leu Gly Phe
      35              40              45
Leu Gly Val
      50

```

&lt;210&gt; 583

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 583

```

Met Ser Thr Ser Asp Gly Phe Ala Pro Pro Pro Gln Leu Gly Ser Arg

```

207

				5					10					15		
Cys	Ser	His	Ile	Arg	Gly	Pro	Ile	Lys	Ile	Ala	Arg	Asn	Lys	Phe	Pro	
			20					25					30			
Arg	Thr	Leu	Thr	Ser	Gln	Glu	Leu	Arg	Arg	Phe	Ala	Glu	Tyr	Ser	Gly	
		35					40					45				
Met	Met	Phe	Gly	Asp	Gln	Thr	Ala	Gly	Gln	Lys						
	50					55				60						

233 334

0119 25

~~<212> P22~~

<213> Homo sapiens

443 534

Met	Cys	Leu	Cys	Ile	Pro	Leu	Gly	Gly	Tyr	Gln	Glu	Leu	Cys	His	Cys
				5					10					15	
Met	Ser	Thr	Ser	Asp	Gly	Phe	Ala	Pro	Pro	Pro	Gln	Leu	Gly	Ser	Arg
				20					25					30	
Cys	Ser	His	Ile	Arg	Gly	Pro	Ile	Lys	Ile	Ala	Arg	Asn	Lys	Phe	Pro
				35				40					45		
Arg	Thr	Leu	Thr	Ser	Gln	Glu	Leu	Arg	Arg	Phe	Ala	Glu	Tyr	Ser	Gly
				50			55					60			
Met	Met	Phe	Gly	Asp	Gln	Thr	Thr	Ala	Gly	Gln	Lys				
				65			70				75				

210 538

211 30

012 111

Q13 Homo sapiens

4094 4095

[illegible]

~~210~~ 500

**000000**

212 SET

02154 Homo sapiens

&lt;400&gt; 566

Met	Leu	Val	His	Ile	Tyr	Ser	Cys	Cys	Gly	Met	Val	Tyr	Arg	Phe	Gly
			5						10					15	
Gln	Met	Ser	Asp	Asn	Pro	Phe	Tyr	Ile	Leu	Ala	Ser	Leu	Gly	Ser	Ser
			20					25					30		
Ser	Cys	Arg	Asn	Gly	Leu	Ala	Ser	Lys	Trp	Arg	Gln	Ala	Asp	Pro	Ser
		35					40					45			
Asp	Gly	Tyr	Met	Glu	Pro	Cys	Phe	Gln	Leu	Leu	Phe				
50						55					60				

&lt;210&gt; 567

4444 4444

422 D38

&lt;213&gt; Homo sapiens

&lt;400&gt; 587

```

ctggacaactt  tgcgagggt  ttgctgggt  gctgctgctg  cccgtcatgc  tactcatcgt  60
agcccgcccg  gtaagctcg  ctgcttccc  tacctcctta  agtgactgcc  aascgcccac  120
cggctggaa  tgcctgggt  atgatgacg  agaaaatgat  ctcttccctc  gtgacaccaa  180
cacctgtaaa  ttgatgggg  aatgtttaag  aattggagac  actgtgactt  gcgtctgtca  240
gttcaagtgc  aacaatgact  atgtgcctgt  gtgtggctcc  aatggggaga  gctaccagaa  300
tgaagtgtac  ctgcgacag  ctgcattgca  acagcagagt  gagatacttg  tgggtgcaga  360
aggatcatgt  gccacagatg  caggatcagg  atctggagat  ggagtcctatg  aaggctctgg  420
agaaactagt  caaaaggaga  catccacctg  tgatatttgc  cagtttgggtg  cagaatgtga  480
cgaagtgtcc  gaggatgtct  ggtgtgtgtg  taatatggac  tgttctcaaa  ccaacttcaa  540
tccccctcgc  gcttctgatg  ggaatctta  tgataatgca  tgcraaatca  aagaagcctc  600
gtgtcagaaa  caggagaaaa  ttgaagtcat  gtctttgggt  cgtgtcagag  ataacacacc  660
tacaactact  aagttctgaag  atgggcatta  tgcaagaaca  gattatgcag  agaattgctaa  720
caaattagaa  gaagtgcga  gagaacacaa  cataccttgt  ccggaacatt  acaatgggtt  780
ctgcctgcct  ggaagtgtg  agcattctat  caatatgcag  gagccatctt  gcagggtgtga  840
tgtgtgttat  actggacaac  actgtgaaaa  aaaggactac  agtgttctat  acgtgtgtcc  900
cgtctctgta  cgaatttcagt  atgtcttaat  cgcagctgtg  attggaacaa  ttcagattgc  960
tgtcatctgt  gtggtgtgct  tctgcacac  aaggaaatgc  cccagaagca  acagaattca  1020
cagacagag  caaataacag  ggcactacag  ttcagacaa  acanacaagag  cgtccacgag  1080
gttaactctaa  agggagcctg  ttccacagtg  gctggactac  cgagagcttg  gactacacaa  1140
tacagtatta  tagacaaaag  aataagacaa  gagatctaca  catgttgctt  tgcatttgtg  1200
gtaactctaca  caaatgaaaa  catgtactac  agctatatat  gattatgtat  ggatatatit  1260
gaatatgtat  acattgtctt  gatgttttt  ctgtaatgta  aataaactat  ttatatcaca  1320
caatawagtt  ttctcttcc  catgtatttg  ttatatataa  taataactca  gtgatgagaa  1380
aaaaaaaaaa  aaaaaaaaaa  rwwgcacc  1408

```

&lt;210&gt; 588

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 588

```

Met Pro Gln Lys Gln Gln Asn Ser Gln Thr Glu Ala Lys Tyr Arg Ala
                    5                      10                      15
Leu Gln Phe Arg Gln Tyr Asn Lys Ser Val His Glu Val Asn Leu Lys
                    20                      25                      30
Gly Ala Cys Phe Thr Val Ala Gly Leu Pro Arg Ala Trp Thr Thr Gln
                    35                      40                      45
Tyr Ser Ile Ile Asp Lys Arg Ile Arg Gln Glu Ile Tyr Thr Cys Cys
                    50                      55                      60
Leu Ala Phe Val Val Ile Tyr Thr Asn Glu Asn Met Tyr Tyr Ser Tyr
                    65                      70                      75                      80
Ile

```

&lt;210&gt; 589

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 589

```

Met Thr Met Cys Leu Cys Val Ala Pro Met Gly Arg Ala Thr Arg Met
                    5                      10                      15
Ser Val Thr Cys Asp Arg Leu His Ala Asn Ser Arg Val Arg Tyr Leu
                    20                      25                      30
Trp Cys Gln Lys Asp His Val Pro Gln Met Gln Asp Gln Leu Glu

```

209

35					40					45					
Met	Glu	Ser	Met	Lys	Ala	Leu	Glu	Lys	Leu	Val	Lys	Arg	Arg	His	Pro
50					55					60					
Pro	Val	Ile	Phe	Ala	Ser	Leu	Val	Gln	Asn	Val	Thr	Lys	Met	Pro	Arg
65					70					75					
Met	Ser	Gly	Val	Cys	Val	Ile	Leu	Thr	Val	Leu	Lys	Pro	Thr	Ser	Ile
80					85					90					
95					100					105					
Pro	Ser	Ala	Leu	Leu	Met	Gly	Asn	Leu	Met	Ile	Met	His	Ala	Lys	Ser
110					115					120					
Lys	Lys	His	Arg	Val	Arg	Asn	Arg	Arg	Lys	Leu	Lys	Ser	Cys	Leu	Trp
125					130					135					
Val	Asp	Val	Lys	Ile	Thr	Gln	Leu	Gln	Leu	Leu	Ser	Leu	Lys	Met	Gly
140					145					150					
Ile	Met	Gln	Glu	Gln	Ile	Met	Gln	Arg	Met	Leu	Thr	Asn			
155					160					165					

210 390

0015 347

&lt;212&gt; PRT

02132 Homo sapiens

4409 590

Met	Leu	Leu	Ile	Val	Ala	Arg	Pro	Val	Lys	Leu	Ala	Ala	Phe	Pro	Thr
			5						10					15	
Ser	Leu	Ser	Asp	Cys	Gln	Thr	Pro	Thr	Gly	Trp	Asn	Cys	Ser	Gly	Tyr
			20						25					30	
Asp	Asp	Arg	Glu	Asn	Asp	Leu	Phe	Leu	Cys	Asp	Thr	Asn	Thr	Cys	Lys
			35					40					45		
Phe	Asp	Gly	Glu	Cys	Leu	Arg	Ile	Gly	Asp	Thr	Val	Thr	Cys	Val	Cys
			50				55					60			
Gln	Phe	Lys	Cys	Asn	Asn	Asp	Tyr	Val	Pro	Val	Cys	Gly	Ser	Asn	Gly
							70			75					80
Glu	Ser	Tyr	Gln	Asn	Glu	Cys	Tyr	Leu	Arg	Gln	Ala	Ala	Cys	Lys	Gln
							85			90				95	
Gln	Ser	Glu	Ile	Leu	Val	Val	Ser	Glu	Gly	Ser	Cys	Ala	Thr	Asp	Ala
			100					105					110		
Gly	Ser	Gly	Ser	Gly	Asp	Gly	Val	His	Glu	Gly	Ser	Gly	Glu	Thr	Ser
							115					125			
Gln	Lys	Glu	Thr	Ser	Thr	Cys	Asp	Ile	Cys	Gln	Phe	Gly	Ala	Glu	Cys
							130				140				
Asp	Glu	Asp	Ala	Glu	Asp	Val	Trp	Cys	Val	Cys	Asn	Ile	Asp	Cys	Ser
							145			155					160
Gln	Thr	Asn	Phe	Asn	Pro	Leu	Cys	Ala	Ser	Asp	Gly	Lys	Ser	Tyr	Asp
							165			170				175	
Asn	Ala	Cys	Gln	Ile	Lys	Glu	Ala	Ser	Cys	Gln	Lys	Gln	Glu	Lys	Ile
							180			185				190	
Glu	Val	Met	Ser	Leu	Gly	Arg	Cys	Gln	Asp	Asn	Thr	Thr	Thr	Thr	Thr
							195					205			
Lys	Ser	Glu	Asp	Gly	His	Tyr	Ala	Arg	Thr	Asp	Tyr	Ala	Glu	Asn	Ala
							210				220				
Asn	Lys	Leu	Glu	Glu	Ser	Ala	Arg	Glu	His	His	Ile	Pro	Cys	Pro	Glu
							225				235				240
His	Tyr	Asn	Gly	Phe	Cys	Met	His	Gly	Lys	Cys	Glu	His	Ser	Ile	Asn
							245			250				255	
Met	Gln	Glu	Pro	Ser	Cys	Arg	Cys	Asp	Ala	Gly	Tyr	Thr	Gly	Gln	His
							260			265				270	
Cys	Glu	Lys	Lys	Asp	Tyr	Ser	Val	Leu	Tyr	Val	Val	Pro	Gly	Pro	Val

## 210

275	280	285
Arg Phe Gln Tyr Val Leu Ile Ala Ala Val Ile Gly Thr Ile Gln Ile		
290	295	300
Ala Val Ile Cys Val Val Val Leu Cys Ile Thr Arg Lys Cys Pro Arg		
305	310	315
Ser Asn Arg Ile His Arg Gln Lys Gln Asn Thr Gly His Tyr Ser Ser		
325	330	335
Asp Asn Thr Thr Arg Ala Ser Thr Arg Leu Ile		
340	345	

<210> 591  
 <211> 563  
 <212> DNA  
 <213> Homo sapien

<400> 591  
 actaaagcaa atgaacaagc tgacttggta gtaacatctg cattcattga agcaaaagaa 60  
 ctccatgccc tgactcatgt aactgcaata ggattaaaaa ataaatttga tatcccatgg 120  
 aaacagacaa aaaatattgt acacacattgc acccagtgtc agattctaca cctggccact 180  
 caggaagcaa gagttaatcc cagaggtcta tctcctaattg tgttatggca aatggatgtc 240  
 atgcacgtac ctccatttgg aaatttggta ttgtccatg tgacagttga tacttattca 300  
 catttcataa gggcaacctg ccagacagga gaaagtactt cccatgttaa aagacattta 360  
 ttatcttgtt ttctgtctat gggagttcca gaaaaagtta aaacagacaa tgggcccagg 420  
 tactgtagta aagcatttcc aaattcttta atccagtggg aaattacaca tacaatagga 480  
 attctctata attcccaagg acaggccata attgaaggaa ctaatagaac actcaaaagt 540  
 caattggta aacaaaaaaa aaaaa 563

<210> 592  
 <211> 189  
 <212> PRT  
 <213> Homo sapien

<400> 592  
 Thr Lys Ala Asn Glu Gln Ala Asp Leu Leu Val Ser Ser Ala Phe Ile  
 1 5 10 15  
 Glu Ala Gln Glu Leu His Ala Leu Thr His Val Asn Ala Ile Gly Leu  
 20 25 30  
 Lys Asn Lys Phe Asp Ile Thr Trp Lys Gln Thr Lys Asn Ile Val Gln  
 35 40 45  
 His Cys Thr Gln Cys Gln Ile Leu His Leu Ala Thr Gln Glu Ala Arg  
 50 55 60  
 Val Asn Pro Arg Gly Leu Cys Pro Asn Val Leu Trp Gln Met Asp Val  
 65 70 75 80  
 Met His Val Pro Ser Phe Gly Lys Leu Ser Phe Val His Val Thr Val  
 85 90 95  
 Asp Thr Tyr Ser His Phe Ile Trp Ala Thr Cys Gln Thr Gly Glu Ser  
 100 105 110  
 Thr Ser His Val Lys Arg His Leu Leu Ser Cys Phe Pro Val Met Gly  
 115 120 125  
 Val Pro Glu Lys Val Lys Thr Asp Asn Gly Pro Gly Tyr Cys Ser Lys  
 130 135 140  
 Ala Phe Gln Lys Phe Leu Asn Gln Trp Lys Ile Thr His Thr Ile Gly  
 145 150 155 160  
 Ile Leu Tyr Asn Ser Gln Gly Gln Ala Ile Ile Glu Gly Thr Asn Arg  
 165 170 175  
 Thr Leu Lys Ala Gln Leu Val Lys Gln Lys Lys Lys  
 180 185

211

<210> 593  
 <211> 271  
 <212> DNA  
 <213> Homo sapien  
  
 <220>  
 <221> misc\_feature  
 <222> (1) ... (271)  
 <223> n = A,T,C or G

```

<400> 593
acattatgtt cnagtgcana aancnccctg gattgcccac ntactctcag ggcgtgagat    60
tgtgncacca nagcaacctg ggcacggggg gacagggggg ccaacaattg agggagcgggt    120
gtccctagct ggggtctata catgcnnggg aaagggcngc tgagtnccat nagcaaagga    180
nctagnatnt gcggggggtgc ggcctgggac taccctttta agcatccntn gatccactcc    240
angaanccng gggtagncag gtttccaac a                                271
  
```

<210> 594  
 <211> 376  
 <212> DNA  
 <213> Homo sapien  
  
 <220>  
 <221> misc\_feature  
 <222> (1) ... (376)  
 <223> n = A,T,C or G

```

<400> 594
ccctttggggg ngggggggaac ctttaccatt gtnccccctt atttcatttg gttinggyttc    60
gogccctcnn gggccaacaa agttatcgtt nttgaagaga anattttttt ggnttagncc    120
cgattagcgc ncaaatgtgt agcaaaangc cgtgccactt gtggcgttag tncgtcgggt    180
cgattagcgc aceagggcgtt ggcgcgtanc gttagtctcn aatngaccn gtggcatyag    240
cccacgaggg nttcgtgtcg tcacatggnc tetagacata acgcncccn ttttttncag    300
agggggnatg cgccttagg gaggnagggg tggggacact agccaancca nantctnacc    360
ccattgaaga aaaggn                                376
  
```

<210> 595  
 <211> 242  
 <212> DNA  
 <213> Homo sapien  
  
 <220>  
 <221> misc\_feature  
 <222> (1) ... (242)  
 <223> n = A,T,C or G

```

<400> 595
agactcgtgn tcgtaccctn tatgtggctt catnatgagc acaanagtat caetgagget    60
tgnatgacc aggcaggnc agctggctc aaaaagcctc cccccacctc tgnaaaggggt    120
atgccangag cangtgcacc agtcccaact angagncncc ggcctgntac ctcttcttcc    180
acccctnasa ntttgnctc caangnccat tttcttttt ctcttaaggg ncncttgget    240
tc                                242
  
```

<210> 596  
 <211> 335  
 <212> DNA  
 <213> Homo sapien

212

<220>  
 <221> misc\_feature  
 <222> (1)...(535)  
 <223> n = A,T,C or G

<400> 596  
 accagttgga taetgetaaa nagatattta tgcagcctca tatgttaagt cgtatatatt 60  
 gaaagctttt taaatttttt ctttaagaag atttttagatg cttatcactg agtaccagag 120  
 ggatgttaggc tgaigccctt atcascaaaag tcaggggactg tggcacacaa ggattgacta 180  
 ctgtagacac ggccacaatg ctacctctag agggccigaa tccccctgcc ctctctggig 240  
 gggagaaggg ctggcagagc cattagcatg ggctcgggcc aatcctggcc actttgacac 300  
 tectgtgtct gaaccagggg cctggaggaa gggatgaggt gggcagtaga gatgctcagg 360  
 gcagtggccc ctttccatcc acactggacc tatctcagta ttttccacc aattccagca 420  
 ttcccttgig cgtgtgctga acatcagccc tgcctcaggt ctccgtttcc cctttgtaaa 480  
 gggaaagctc tggattcagg gatgtatga gaggtcaca tggctcttgag aatto 535

<210> 597  
 <211> 257  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(257)  
 <223> n = A,T,C or G

<400> 597  
 ttctnatacc caaaaantacc ccattattang accanacatt tgtctnggaa aaattaccat 60  
 tntntaactt ttggggccccc tgagannaaa tgggtgtaat ncatgataag atggancagn 120  
 atttctctta agatnngata agaccocgtt ttccacggaa catatccaag naccacaatag 180  
 gnaacaagcc acgggnggag tcacaaacat atattcttta ctctcataat ccgtannaca 240  
 naactnttgn acttgac 257

<210> 598  
 <211> 222  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(222)  
 <223> n = A,T,C or G

<400> 598  
 nntggntacc gtenaaactt nacttggtag ccgagctcgg atccactagt ccagtgtggt 60  
 ggaattccat tgtgttgggc tataagctgt aatagtgagg nctgtctngg ttcattgcan 120  
 nagnccctcc gcannacacn ttgnnacaac ctgtgagnag gcnataaatt attcacataa 180  
 tcatcactgc atgaanctga ctcaaaogca tccacntaca cc 222

<210> 599  
 <211> 238  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(238)

213

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 593

gcacgacac	anccatgttt	ttggnaacct	ganattngct	aaaactngng	natgocgggn	60
atgnagggtt	ggtantgac	tatgcactca	cctctcstgg	ggacgtttca	tgtggagtg	120
tgcacaangt	tgctgnancc	gagaagtgt	gatctcagtt	gaaaggggtc	tgtgaataca	180
cattacactt	gaaaaagaag	cacattggga	atctcagcaa	acgcccacca	acatctctg	238

&lt;210&gt; 603

&lt;211&gt; 232

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)...(232)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 603

agaactatct	agctaccta	ggaaaattat	tttagtctca	gaagcctatc	aggggtgtag	60
tactcatcag	agctaaatga	gagcgcttta	aaaatgttag	tttgtcttcc	gccatttcta	120
cagaagcttg	caatttcagg	tttcaacct	aataggtgat	atttaaaaaa	aaaaaaagc	180
aatcgcaaat	agccccctg	cttttcaaaa	tcatttttct	cccaacacaa	tg	232

&lt;210&gt; 601

&lt;211&gt; 547

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)...(547)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 601

cattgtgttg	gggaaaaaat	gatttgtata	agcagtgagg	ctattttgca	ttgttttttt	60
ttttctttta	atatcaacta	ttaggttgaa	aacctgaaat	tgcagctttc	tgtagaaatg	120
ggggaagaca	aactaacatt	tttaaaagcg	tctcatttag	ctctgatgag	tactacaccc	180
ctnatattct	tctgatacta	aaataatttt	cctagtgtag	tctaaacttt	tttaaaaaga	240
catgtaatec	gagggttag	taactcaaaa	cgggtgactc	tgggaagtat	cgcagccgtt	300
nstggatnaa	attcccagct	tgctngcttg	ctnagccggg	gggaggtnaa	aaaaacatct	360
gcagcccnng	gynaaaaacc	ttcgcaattg	tcttacgtgt	ttacgttatt	ttatttccct	420
nnagcaaggg	aggganttgg	ggactcgaaa	tggtacagtt	gggtcgggga	tgcaccttgt	480
tacataaaaag	ncgtccagaa	gagggacggg	tacaggcnng	ganctccaaa	ggtcagtcac	540
tgccatt						547

&lt;210&gt; 602

&lt;211&gt; 826

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)...(826)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 602

gggggggnat	taagctctct	tgagcgcttt	tattgtacca	gggggatccc	agcccaactg	60
------------	------------	------------	------------	------------	------------	----

214

```

taccatttoga gtccctactc ctgccttgcct ctagggaaat aaaataacgt aaacacgtaa 120
gaacaaatgog aaagcggtttt ctcccttagg ctgcagattg tcttcttcac cgcacctgct 180
tagctagcta gctagctggg aatttaatec agaaacggct tgcgatacct cctagatgca 240
ctcgttttga gttacaaact cgcgggatta catgtctttt taaaaaagt tagactacac 300
tagggaaaaat tatttttagta tcagagaaat atcagggggt gtagtactca tcagagctna 360
atgagagcgc tttaaaaatg ttagtttgtc ttccggcatt tctacagaaa gctgcaattt 420
caggttttca nectaatagg tgatatntaa gaaaaaaaaa acaatcgcan atageccact 480
gcttttacaa atcatttttc tcttctagggt atagcctgtc aggtggccta atgtattttt 540
gacatctcta ggaattttta tagaccagaa atgggtgcca gagatatgcc tgcactaatc 600
ttaagtgggy atttatgtat ttctcaanca agtgattaaa gcaaaactag gcacgaatga 660
aatcaagatc tttaggccag aatcatgas nanttttana attattttan gaatctgtgg 720
cttctcttct taaaatngaa aaaaaaatg tttaaaccca naaggtctga ataccsaagc 780
nccctgaacn anagaaacan gccgagcac cccctcccaa atcccc 826

```

<210> 603  
 <211> 817  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(817)  
 <223> n = A,T,C or G

```

<400> 603
nnangacttt tgtggtntta tacaattint ttttctattt ctatgaagag aaagccacag 60
agtcttaaaa taattctaaa actcatcatg actttcttgc ctaaaagatc ttgatttcaa 120
tcgtgcctag ttttgcttta atcaattggt tgagaataac ataaatcccc acttaagatt 180
agtgcaggca tatctctggc accatittct ggttctatta aaattcctag agatgtcaca 240
aattacatta ggccacctga caggctatac ctagaagaga aaaaatgatt tgtaaaagca 300
gtggggctat ttgcgattgc tttttttttt tcttaaatat cacctattag gttgaaaacc 360
tgaatttgcg gctttctgta gaaatggcgg aagacaaaact aacattttta aagcgctctc 420
atttagctct gatgagtact acacccctga tattctcttg atactaaaat aattttccta 480
gtgtagtcta aactttttta aaaaagcatg taatccggcg agtttgtaac tcaaaagag 540
tgcatctagg aggtatcgca agccggtttt ggattaaatt cccagctago ttgcttgctt 600
agcagggggc ggnaaaaaag acatctgcag cctagggaag aaaaacttcc gcattgttct 660
taogtgitta cgttatttta ttctctanaa caaggcngaa ttgggactcg aatggktcag 720
ttgggggtgg ggaacccctg gtncataaaa ngtcnaaaag anggtacagg cggaaaccca 780
aggytctgac tgcattttta ctgggaattt tgggtgcc 817

```

<210> 604  
 <211> 694  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(694)  
 <223> n = A,T,C or G

```

<400> 604
cttttcaaat catttttact ctcttaggta tancctgtca ggtggcctaa tgtaatthtt 60
gacatctcta ngaattttta tagaaccaga aatgggtgac agagatatgc ctgcactaat 120
cttaagtggy gatattatga ttctctcagg aagtgatcaa agcaaaacta ggcacgattg 180
aatcaagat ctcttaggca anaaagtcat gatggttttt agaattatit taggaactctg 240
ttgctttctc ttcatagaaa tagaaaaaaa aattgtataa aaccacaaaa ggtcctgaat 300
agcaaaagca acactganea aaaaagaacan agcaggggag caacacacta congaaattc 360
aattatacta ccagggtgta gtaaccaaaa cagpattcta ttggcataaa atagacacca 420

```

215

```

agcccaatgg aacagaataa agaacccccac aaatssatcc atatatttac cgcacactga      480
ttatcaataa cnaacaccaa gaacatatnt taagggaact nctattcaat aantaagtgt      540
ggnaaaaaact gggaaatcca tatgcagaaa naatgaaact agaccactat cctcaccat      600
acgcaaannt caacttcgga atgggattac aaaacttaag acattccaac ccaagaaact      660
atnaaancta ctattaagaa aacagatcnc nccc                                694

```

&lt;210&gt; 405

&lt;211&gt; 678

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(678)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 605

```

taaaaactca gactacacta ggaaattatt ttantatcag aagaatatca ggggtgtagt      60
actcatcans gctaaatgag agcgotttaa aaatgttagt ttgtcttcgg ccatttctac      120
agaaagctgc aatttcaggt ttccaacctc ataggtgata tttaagaaaa aaaaaagca      180
atcgcaata gcccactgc ttttacaat catTTTTTct cttctaggta tagcctgtca      240
gggtggctaa tgtaattttt gacatctcta ggaattttta tagaacaga aatgggtgoc      300
agagatatgc ctgcactaat cttaagtggg gatttatgta ttctcaaggc aagtgattaa      360
agcaaaacta ggcaagattg aaatcaanac cttttaggca agaaagtcat gatgagttt      420
anaattatit taggaactct tggttttctc ttcatatgaa tagaaaaaaa aaattgtata      480
aaaaccacaa aaggtcctga atagcccaaa gcacactga acaaaangaa caaagcagga      540
agcaccacac taccggaatt caattatact accaaggtgt antaaccaaa acagcattct      600
attgggcata aaatagacca aagaccagtg ggaacacaga taagaancc caaataaact      660
octatattta cngcccnc                                678

```

&lt;210&gt; 606

&lt;211&gt; 263

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(263)

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 606

```

gtggggctcg canacagcaa ctacgcttcc ttccgggctt tgttagcaga cggatcatcc      60
tctagtcac tgtgntcaaa ttccattgtg tggggggcnc tgcctcggc canagatctg      120
agtgancana cntgtcccca ctgaggtgoc ccacagcngn ttgtnttcag cangggctna      180
caactcgacc ggcagcgan ggctggcaga antgngcgcc tnaetcatc ctacgcngtn      240
ngccgcagga aggangacag gcc                                263

```

&lt;210&gt; 607

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer

&lt;400&gt; 607

```

ccatgtgggt cccggttgtc tt                                22

```

216

<210> 608  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 608  
gataggggtg ctcaggggtt gg

22

<210> 609  
<211> 40  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 609  
gttgacagg gggcaaaagg tggggcagtg aacctgtgc

40

<210> 610  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 610  
ccttgtccag atagcccagt agctgac

27

<210> 611  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 611  
gatagagaaa accgtccagg ccagtattgt gggaggtgg gagtgc

46

<210> 612  
<211> 40  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 612  
gcacatggtt cactgccca gcttttgccc cctgtccagc

40

<210> 613  
<211> 38  
<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 613

gccgctcgag ttagaattcg gggttggcca cgaatggtg

38

<210> 614

<211> 53

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 614

cggggggcat atgcattacc ataccatca catcataaac ggagaggact gca

53

<210> 615

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 615

gaactccag cctcdacaa tactggcctg gacggttttc totate

46

<210> 616

<211> 1350

<212> DNA

<213> Homo sapien

<400> 616

atgcattacc ataccatca catcataaac ggagaggact gaagcccgca ctgcagccc	60
tgccagcgcg cactggtcac ggaaccgaa ttgttcctgt cgggcgtcct ggtgcaccc	120
cagtggtgac tgtcagccgc acactgtttc cagaactcct acaccatcg gctgggctg	180
caacgtcttg aggcggacca agagccaggg agccagatgg tggaggccag cctctccga	240
cgccaccag agtacaacag acccttgctc gctaacgacc tcatgctcat caagttggc	300
gaatccgtgt ccgagtcctg caccctccgg agcatcagca ttgcttcgca gtgcctacc	360
gcgggggaact cttgccttgt ttctggctgg ggtctgctgg cgaacggcag aatgcctacc	420
gtgctgcagt gcgtgaacgt gtccgtggtg tctgaggagg totgcagta gctctatga	480
ccgctgtacc accccagcat gttctggccc ggccggaggc agaccagaa ggactcctgc	540
aacggtgact ctgggggggc cctgatctgc aacgggtact tgcagggcct tgtgtcttc	600
ggaaagccc cgtgtggcca agttggcgtg ccaggtgtct acaccaact ctgcacattc	660
actgagtgga tagagaaac cgtccaggcc agtattgtgg gaggctggga gtgcgagaag	720
cattcccaac cctggcaggt gcttgtggcc tctcgtgga gggcagtcg cggcggtgt	780
ctggtgcacc cccagtgggt cctcacagct gccactgca tcaggaaaca aagcgtgac	840
ttgctgggtc ggcacagcct gtttcactct gaagacacag gccaggtatt tcaggtcagc	900
cacagcttcc cacacccgct ctacgatatg agcctcctga agaactgatt cctcaggcca	960
ggtgatgaact ccagccagca cctcatgctg ctccgctgt cagagcctgc cagctcacc	1020
gatgctgtga aggtcatgga cctgcccacc caggagccag cactggggac cactgtatc	1080
gcctcaggtc ggggcagcat tgaacagag gattcttga ccccaagaa acttcagtg	1140
gtggacctcc atgttatttc caatgacgtg tctgcgcaag ttcacctca gaagtgacc	1200
aagttcacgc tgtgtgctgg acgtggaca gggggcaaaa gctggggcag tgaacctgt	1260
gcctgcacc aaaggccttc cctgtacacc aaggtggtgc attaccgaa gtggatcag	1320

218

gacaccatcg tggccaaccc cgaattctaa

1350

&lt;210&gt; 617

&lt;211&gt; 449

&lt;212&gt; FRT

&lt;213&gt; Homo sapien

&lt;400&gt; 617

Met	His	His	His	His	His	His	Ile	Ile	Asn	Gly	Glu	Asp	Cys	Ser	Pro
1			5						10					15	
His	Ser	Gln	Pro	Trp	Gln	Ala	Ala	Leu	Val	Met	Glu	Asn	Glu	Leu	Phe
			20					25					30		
Cys	Ser	Gly	Val	Leu	Val	His	Pro	Gln	Trp	Val	Leu	Ser	Ala	Ala	His
		35				40					45				
Cys	Phe	Gln	Asn	Ser	Tyr	Thr	Ile	Gly	Leu	Gly	Leu	His	Ser	Leu	Glu
	50				55					60					
Ala	Asp	Gln	Glu	Pro	Gly	Ser	Gln	Met	Val	Glu	Ala	Ser	Leu	Ser	Val
65				70					75					80	
Arg	His	Pro	Glu	Tyr	Asn	Arg	Pro	Leu	Leu	Ala	Asn	Asp	Leu	Met	Leu
			85					90					95		
Ile	Lys	Leu	Asp	Glu	Ser	Val	Ser	Glu	Ser	Asp	Thr	Ile	Arg	Ser	Ile
		100						105				110			
Ser	Ile	Ala	Ser	Gln	Cys	Pro	Thr	Ala	Gly	Asn	Ser	Cys	Leu	Val	Ser
	115					120					125				
Gly	Trp	Gly	Leu	Leu	Ala	Asn	Gly	Arg	Met	Pro	Thr	Val	Leu	Gln	Cys
	130				135						140				
Val	Asn	Val	Ser	Val	Val	Ser	Glu	Glu	Val	Cys	Ser	Lys	Leu	Tyr	Asp
145				150					155					160	
Pro	Leu	Tyr	His	Pro	Ser	Met	Phe	Cys	Ala	Gly	Gly	Gly	Gln	Asp	Gln
			165					170						175	
Lys	Asp	Ser	Cys	Asn	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Ile	Cys	Asn	Gly
	180						185					190			
Tyr	Leu	Gln	Gly	Leu	Val	Ser	Phe	Gly	Lys	Ala	Pro	Cys	Gly	Gln	Val
	195					200					205				
Gly	Val	Pro	Gly	Val	Tyr	Thr	Asn	Leu	Cys	Lys	Phe	Thr	Glu	Trp	Ile
	210				215						220				
Glu	Lys	Thr	Val	Gln	Ala	Ser	Ile	Val	Gly	Gly	Trp	Glu	Cys	Glu	Lys
225				230					235					240	
His	Ser	Gln	Pro	Trp	Gln	Val	Leu	Val	Ala	Ser	Arg	Gly	Arg	Ala	Val
			245						250					255	
Cys	Gly	Gly	Val	Leu	Val	His	Pro	Gln	Trp	Val	Leu	Thr	Ala	Ala	His
		260						265				270			
Cys	Ile	Arg	Asn	Lys	Ser	Val	Ile	Leu	Leu	Gly	Arg	His	Ser	Leu	Phe
	275						280					285			
His	Pro	Glu	Asp	Thr	Gly	Gln	Val	Phe	Gln	Val	Ser	His	Ser	Phe	Pro
	290				295						300				
His	Pro	Leu	Tyr	Asp	Met	Ser	Leu	Leu	Lys	Asn	Arg	Phe	Leu	Arg	Pro
305				310					315					320	
Gly	Asp	Asp	Ser	Ser	His	Asp	Leu	Met	Leu	Leu	Arg	Leu	Ser	Glu	Pro
			325					330					335		
Ala	Glu	Leu	Thr	Asp	Ala	Val	Lys	Val	Met	Asp	Leu	Pro	Thr	Gln	Glu
	340							345					350		
Pro	Ala	Leu	Gly	Thr	Thr	Cys	Tyr	Ala	Ser	Gly	Trp	Gly	Ser	Ile	Glu
	355					360					365				
Pro	Glu	Glu	Phe	Leu	Thr	Pro	Lys	Lys	Leu	Gln	Cys	Val	Asp	Leu	His
	370					375					380				
Val	Ile	Ser	Asn	Asp	Val	Cys	Ala	Gln	Val	His	Pro	Gln	Lys	Val	Thr
385					390					395				400	

219

Lys Phe Met Leu Cys Ala Gly Arg Trp Thr Gly Gly Lys Ser Trp Gly  
 405 410 415  
 Ser Glu Pro Cys Ala Leu Pro Glu Arg Pro Ser Leu Tyr Thr Lys Val  
 420 425 430  
 Val His Tyr Arg Lys Trp Ile Lys Asp Thr Ile Val Ala Asn Pro Glu  
 435 440 445  
 Phe

<210> 618  
 <211> 385  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1)...(385)  
 <223> n = A,T,C or G

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 tttatcacta ccaccatcac ctgggagctc attagaagc tagtctcccg ggcaccacccc 120  
 tggcctactg aacctaatgt gcatttaaca agattnacgt ngasatctgc aaagcacagg 180  
 ggcagataac agtaccacct gattctggctc ctancccccac gacccttaca gtctaaactgg 240  
 gacacaaaggg cttnaaatca aattgcctat cattaagata tacaanganc ntgagaaact 300  
 gctncactta tntattaagg ngtcttaaga cttagaaccn aaangcanti ctgagangat 360  
 tcaaatatga ngggggncac tttnc 385

<210> 619  
 <211> 869  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
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 <223> n = A,T,C or G

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 gaactctcat acatatgcca aaattgatga gtatataaat atttcagtag gtatgtacta 180  
 gctttctgtg tatgagttaa catatgggag aaatttaaaa cactaaagta gaactaatga 240  
 aagcatagta tccatagtat tctgttttca gaaatgtcta atgaaggagc gaaacaatga 300  
 atgaatgccc ttatttctct tagagtgtct ggcacatgggt ttgcctgaaa acttcagtgt 360  
 aattttatat ttgtctacac attacaccca tcttagactt atactatata gacataaggc 420  
 atatcttatg tcttaacatgt ataataatct aagcagaaca aaaaataacg aaatatttct 480  
 ttccccaat ttttagaca gatggatttt ccggaaagat gtgttttagct ttttaactctg 540  
 tggttttgtg taacacctgg cacactagag tgttgctcta attcagtagg ttgttaactct 600  
 ggggtgaacag tggaaatact aggttacatt ttaaaaatgc taatgtctcg gcctogctga 660  
 agaccaaat ttttgaatc tctgngggng gnattgatct ttttataatc tttctanang 720  
 attctaattg gcttcaggc atgaaaaccn ctgntggagc tnggaacatt ctttttagctt 780  
 ggagaaaccc cgtatagggt ntnttaggcn ccgcctnttt ttggcctggg cttcccccct 840  
 tatnntatnt tgggaaggnc cnaattttt 869

<210> 620  
 <211> 339  
 <212> DNA